RAILWAY AGE

THE STANDARD RAILROAD WEEKLY FOR ALMOST A CENTURY

FREIGHT TRAFFIC ISSUE

SEPTEMBER 3, 1951

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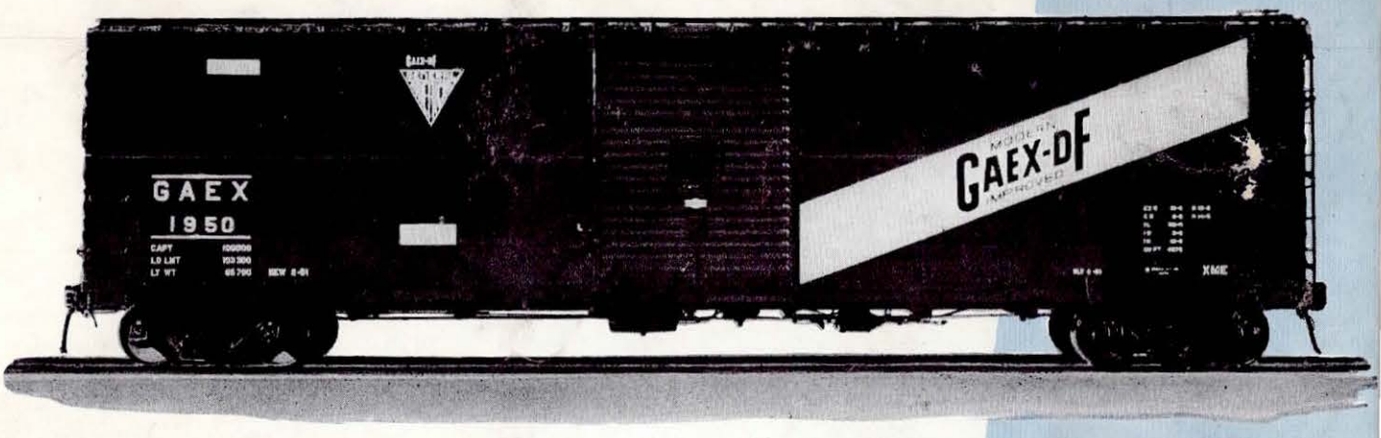
YOUNGSTOWN *Doors*

FOR MODERN "DAMAGE FREE" BOX CARS



Youngstown steel doors, the standard door for American and Canadian railroads, have been selected as standard equipment for these revolutionary, new, "Damage Free" cars, thereby assuring complete weather protection to the lading.

MODERN CARS USE MODERN DEVICES

YOUNGSTOWN STEEL DOOR COMPANY

Camel Sales Company
Cleveland Chicago

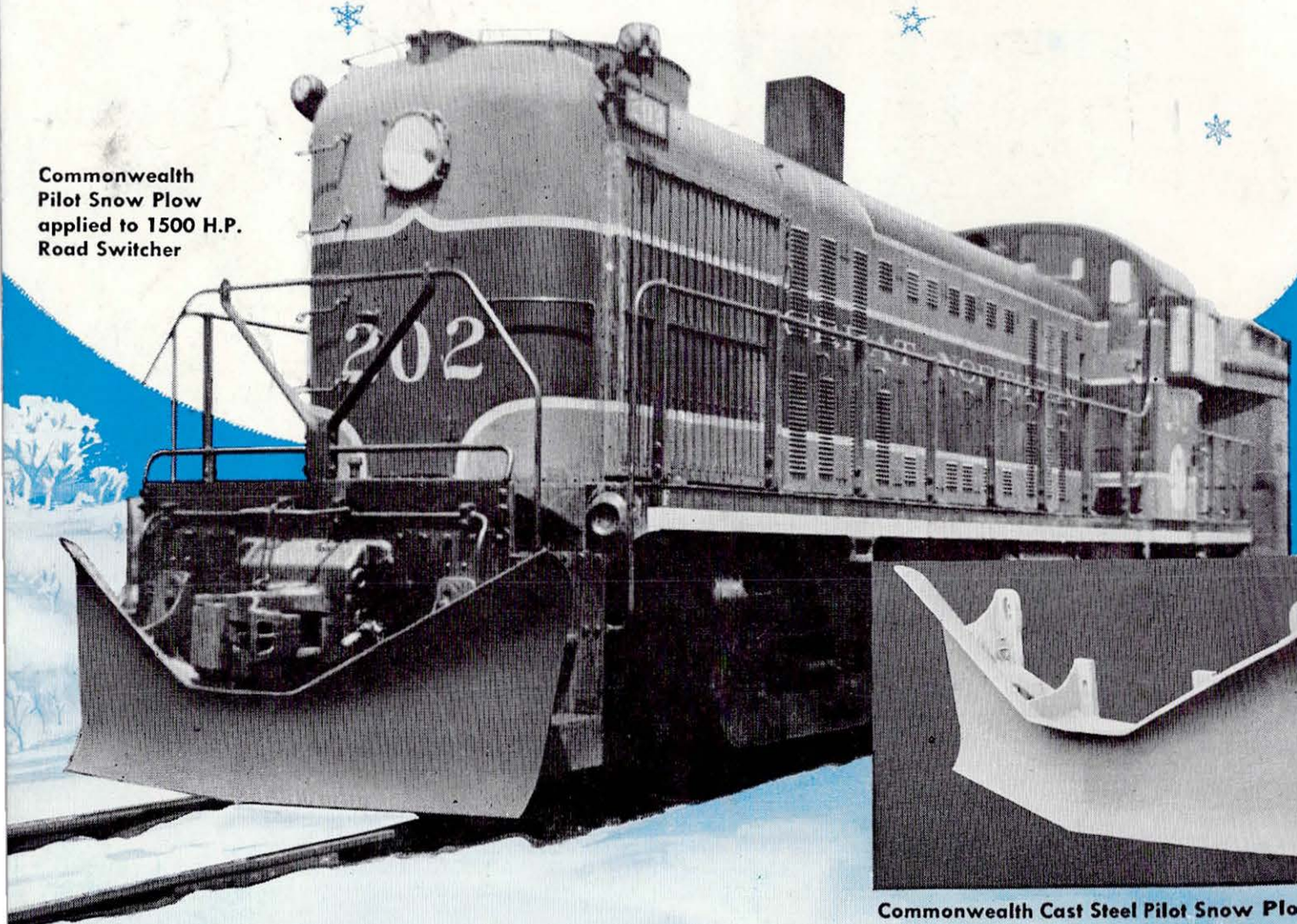
Camel Company Limited
New York Youngstown

WHEN SNOW FLIES...
Be Prepared With COMMONWEALTH
PILOT SNOW PLOWS

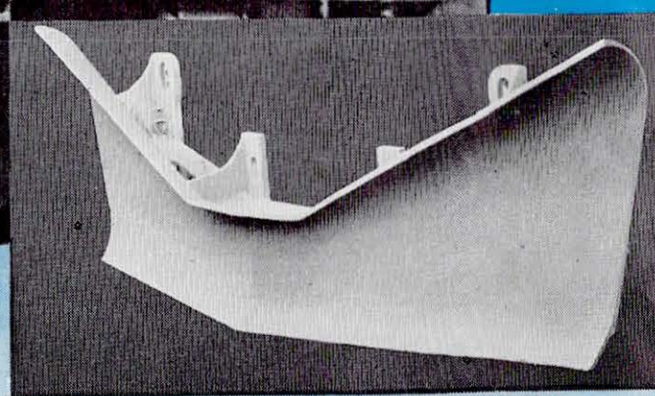
COMMONWEALTH One-Piece Pilot Snow Plows applied to diesel switchers and road switchers have proved of great value in keeping rails clear of drifting snow without the costly repeated use of large snow plow equipment.

These rugged cast steel pilot plows can be easily applied, removed and reapplied. Also, as a permanent application, they help solve year round operating problems by serving as strong deflecting pilots which clear the way of objects, substantially reducing the possibility of accidents or derailments. They have provision for ample adjustment to the desired height above the rail and may be used without interference with normal coupling operations.

Act now to reduce *your* next winter's operating costs with **COMMONWEALTH** One-Piece Cast Steel Pilot Snow Plows.



Commonwealth Pilot Snow Plow applied to 1500 H.P. Road Switcher



Commonwealth Cast Steel Pilot Snow Plow

GENERAL STEEL CASTINGS

GRANITE CITY, ILL. EDDYSTONE, PA.

MINER *Truck Spring Snubber*

CLASS C-4-S

SAFEGUARDS LADING

W. H. MINER, INC. CHICAGO

MISSOURI PACIFIC LINES

One of 36 railroads using P-A-X business telephone systems

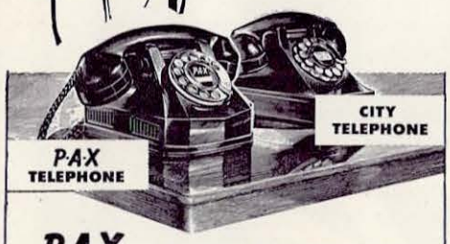
P-A-X reaches anyone, anytime, anywhere,

in this Missouri Pacific car shop!

Like many other car shops, the Missouri Pacific's DeSoto works, for building and repairing freight cars and cabooses, consists of several buildings that cover a large area. But P-A-X knits them all together—with fast, automatic telephone service to coordinate operations.

P-A-X even solves the tricky problem officials have in trying to reach foremen who are always on the move. "Code-Call", a special service valuable to railroads, provides bells, whistles or horns, easily heard above shop noise; they sound a personalized code throughout the shop area and the foreman answers from the nearest P-A-X telephone for a private, easily heard conversation.

This is but one of the Missouri Pacific's several P-A-X's, the first of which was installed in 1923.



P-A-X *automatic telephones provide quick telephone service within your organization.*

P-A-X *is owned by the user. It has no connection with city telephone facilities.*

P-A-X *keeps city telephones free for outside calls—improves service to customers.*

P-A-X *reduces costs of local and long-distance telephone service.*

P-A-X *gives you control of your organization and coordinates all departments.*

P-A-X *cuts costs by saving time and steps and preventing errors.*

You, too, can coordinate your operations, make work smoother with P-A-X. Fast and convenient, P-A-X builds teamwork between departments—in car shops, yards or offices. Install a P-A-X Business Telephone System in each of these locations for the finest local communication. Link them with your own lines into one, company-wide network and you'll extend the efficiency of P-A-X throughout your system. Let us show you all its advantages —write:

AUTOMATIC ELECTRIC SALES CORPORATION
1033 W. Van Buren St., Chicago 7, Ill.
Offices in principal cities

P-A-X business telephone systems

AUTOMATIC ELECTRIC

Vol. 131, No. 10 September 3, 1951

RAILWAY AGE

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Railway Signaling & Communications Car Builders' Cyclopedia Locomotive Cyclopedia
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AT HOME ON THE RAILROAD

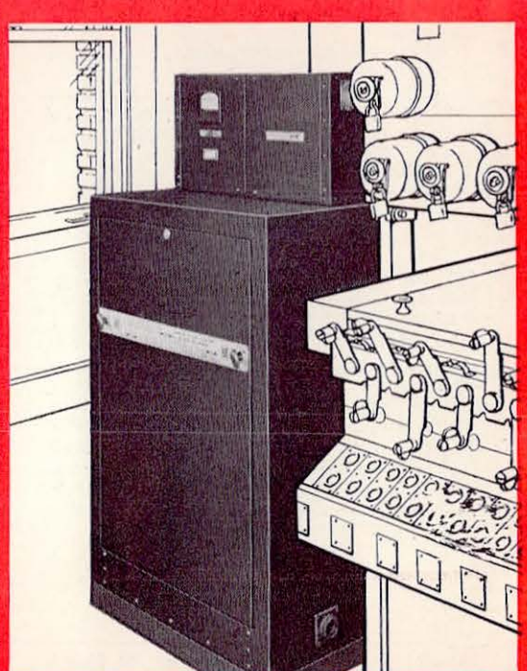
"UNION" I.T.C.!

The operating success of train communication depends largely upon those special features which make the system particularly adaptable to *railroad service.* And, "Union" Inductive Train Communication was designed with this in mind.

The wayside apparatus is an example. It consists of the usual necessary facilities . . . including two receivers and two loudspeakers with the two-frequency system. But in addition, it has *extra* features which "belong" in a wayside office, such as key-controlled circuits in the control station to permit: the use of the operator's regular desk set for normal communication with trains and the connection of an accessory handset for special purposes such as maintenance testing; and jacks for patching either receiver into the dispatcher's line.

Our representatives can tell you about other important features of "Union" I.T.C., too, including the use of plug-in components throughout the system, and means for connecting recording apparatus at wayside offices. For full particulars, call or write any of our district offices.

Wayside apparatus includes means for connecting recording apparatus.



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DIVISION OF WESTINGHOUSE AIR BRAKE CO.

SWISSVALE PENNSYLVANIA

NEW YORK ST. LOUIS CHICAGO SAN FRANCISCO

WEEK AT A GLANCE

CURRENT RAILWAY STATISTICS

Operating revenues, six months
1951 ..... $ 5,035,876,498
1950 4,223,707,275

Operating expenses, six months
1951 ..... $ 3,975,306,446
1950 3,354,141,920

Taxes, six months
1951 ..... $ 570,919,760
1950 434,899,975

Net railway operating income, six months
1951 ..... $ 388,044,695
1950 346,295,612

Net income, estimated, six months
1951 ..... $ 250,000,000
1950 209,000,000

Average price railroad stocks
August 28, 1951 ..... 52.50
August 29, 1950 ..... 46.35

Car loadings, revenue freight
33 weeks, 1951 25,361,667
33 weeks, 1950 23,439,531

Average daily freight car surplus
Week ended August 25, 1951 ... 4,354
Week ended August 26, 1950 ... 4,371

Average daily freight car shortage
Week ended August 25, 1951 ... 17,852
Week ended August 26, 1950 ... 39,477

Freight cars delivered
July 1951 5,290
July 1950 3,464

Freight cars on order
August 1, 1951 144,810
August 1, 1950 67,084

Freight cars held for repairs
August 1, 1951 101,001
August 1, 1950 129,097

Average number railroad employees
Mid-July 1951 1,294,525
Mid-July 1950 1,247,987

Net Ton-Miles per Serviceable Car per Day
June 1951 (preliminary) 1,035
June 1950 997

In This Issue . . .

GRIFFIN PLAN: J. B. Griffin, superintendent of traffic for the Scovill Manufacturing Company of Waterbury, Conn., is the author of a plan for better L. C. L. service which bears his name, and which is the subject of a feature article and of an editorial in this issue. Mr. Griffin, a former railroader, is chairman of the L. C. L. committee of the New England Shippers Advisory Board, as well as a member of the traffic committees of the Waterbury Chamber of Commerce, the Naugatuck Valley Industrial Council and the Copper & Brass Research Association.

DOING THE JOB: Like almost any large-scale enterprise better railroad freight service can come only as the sum total of many efforts in many different directions by many different carriers. Some of those efforts are reported in this issue—How the Green Bay & Western uses radio to speed freight movement (page 50); how the Rock Island has expedited its share of transcontinental freight through Denver by spending over $2 million on a new cut-off line (page 47); how the Milwaukee helps timber-using industries by modern tree farming (page 44); how the B. & O. promotes use of one of its territory's natural resources (page 61); how the Kansas City Southern has "lifted itself by its bootstraps" (page 55). And in the news section, a considerable list of new railroad services and publications of special interest to shippers.

WANT TO SWAP? In this issue's Classified Ad columns is an offer to trade a photo studio, camera store and real estate for a short line railroad. We'd like some suggestions from readers as to which is the frying pan and which is the fire!

IN THE NEWS SPOTLIGHT: Dahill heads committee to find substitute loading and bracing materials for military shipments.—Canadian roads file rate equalization plans.—Erie takes another step toward complete dieselization, by authorizing purchase of 13 additional units.—Pennsylvania's freight car rehabilitation program 90 per cent complete.—National Malleable to build new physical testing laboratory for railway engineering development work.—Northern Pacific's 11-year track program nears completion.—Reading announces major changes in traffic department, with Harry B. Light becoming vice-president.

$100,000 A YEAR FOR BETTER TARIFFS: The special tariff simplification committee being established by the railroads under the chairmanship of Charles S. Baxter will have an annual budget of $100,000. This is revealed, publicly, we believe, for the first time, in a letter from Mr. Baxter to I. C. Commissioner J. Haden Alldredge, which is quoted in full in Commissioner Alldredge's article on page 42. Another member of

WEEK AT A GLANCE

the new group is George W. Lupton, Jr. Further details concerning the new organization, as announced by the P. R. R.'s Fred Carpi, are included in the news columns.

In Washington . . .

THE EVIDENCE MOUNTS UP: "The ability of motor carriers to take freight traffic from the railroads by reason of lower rates has been and is due largely or entirely to inequality of treatment accorded rail and motor carriers. . . . Railroads provide and maintain at their own expense, and pay taxes on, their respective rights of way and trackage. Competing motor carriers do not operate on either that basis or a comparable basis. . . . There is no showing that any substantial part of the highway fund is paid by motor carriers of freight for hire."—*From a proposed report on intrastate rail rates in Louisiana, by I.C.C. Examiner Claude A. Rice.* (See news pages for further details.)

NO FAST WRITE-OFFS: There won't be any in railroad reports to the I. C. C.—except for facilities which "will have no use in transportation service after the emergency"—under a commission ruling made public August 24, the gist of which is summarized in the news pages. Interested parties may file written presentations with respect to the matter by September 27; such presentations will undoubtedly be forthcoming, in view of railway accounting officers' reportedly "overwhelming" opposition to the commission ruling.

PENSION PROSPECTS: A majority report favoring a 15 per cent increase in railroad retirement pensions and a 33 1/3 per cent boost in survivor benefits, is due to be filed by the House Interstate and Foreign Commerce Committee soon after the House reconvenes September 12. Representative Crosser, Democrat of Ohio and chairman of the committee, is among those disagreeing with the report.

Harris & Ewing

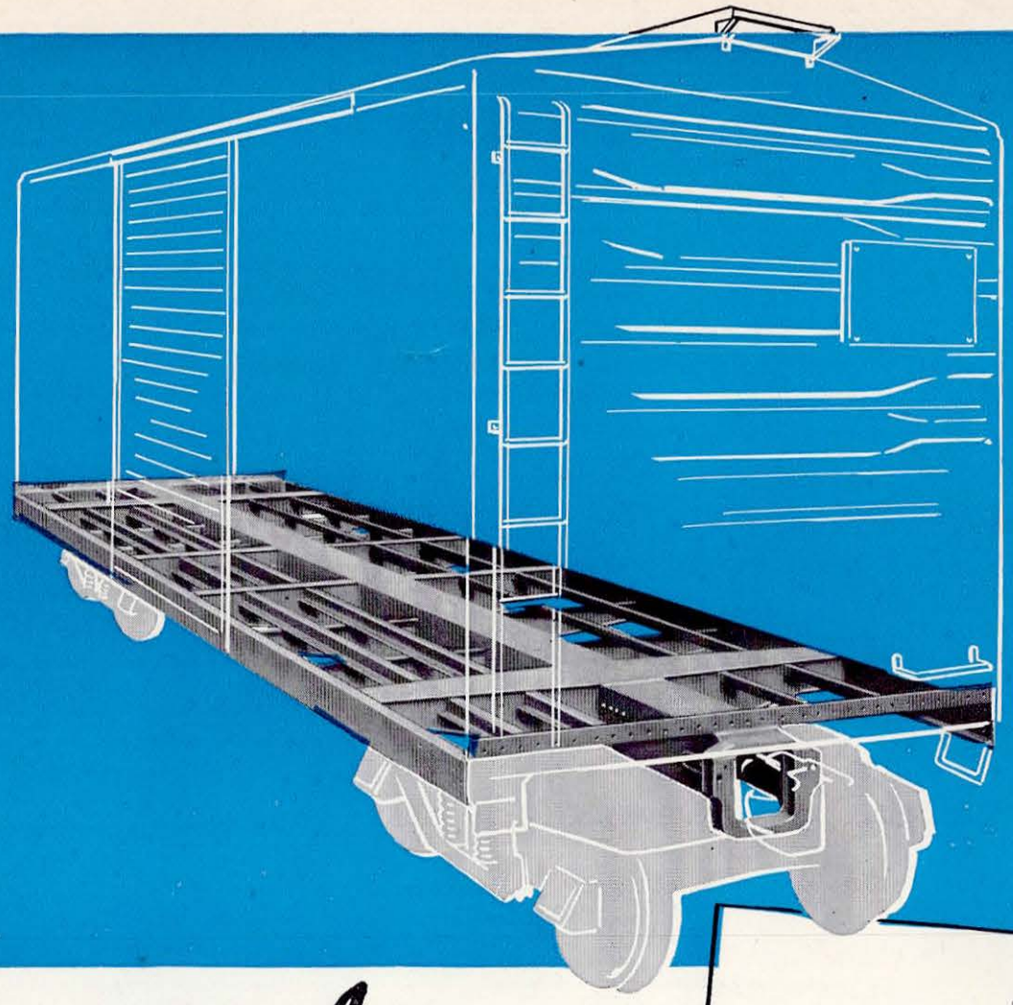
"ASIDE FROM THE DEMANDS OF THE LAW common sense and the enlightened self-interests of both the carriers and their patrons strongly support" the objective of simplified tariffs. So says Interstate Commerce Commissioner J. Haden Alldredge, in a feature article specially written for this issue of Railway Age, in which he comments approvingly upon the railroads' establishment of a special committee to concentrate on the task of improving both form and substance of freight tariffs.

. . . And Elsewhere

COMING NEXT MONTH: Next month's Freight Traffic Issue, to be dated October 1, will include, among other features, *Railway Age's* annual tabulation of freight stations equipped for mechanical handling, revised and enlarged.

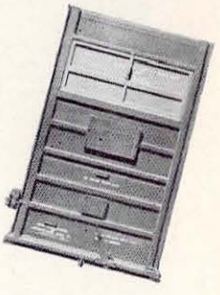
LAST ROUNDHOUSE—HEADIN' FOR LAST ROUNDUP! The last one, anyway, on the Lehigh Valley—a 30-staller at Easton, Pa., is now being torn down, as the Valley has advanced from October to September 21 the probable date of complete conversion from steam to diesels.

NEW STATION? Pittsburgh's Penn-Lincoln Parkway project will, it is reported, affect the Baltimore & Ohio's facilities in the Water street area and may require replacement of the railroad's present passenger station in the vicinity of Grant and Water streets. The necessary railroad changes are still in the formative stage, with no contracts awarded and other details still undecided. No actual construction is anticipated during the current year.

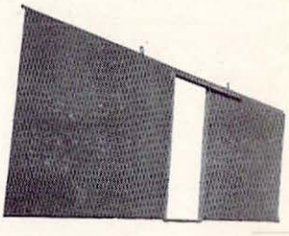


THE *International* UNDERFRAME a solid Foundation for *International* SIDES AND DOORS

A much sturdier underframe, incorporating a maximum utilization of material section with minimum weight. All down-hand welded, AAR requirements equalled or surpassed in every feature. Delivered, upon specification, complete with couplers, draft gears, air brake equipment brackets, piping, lever carriers, etc.



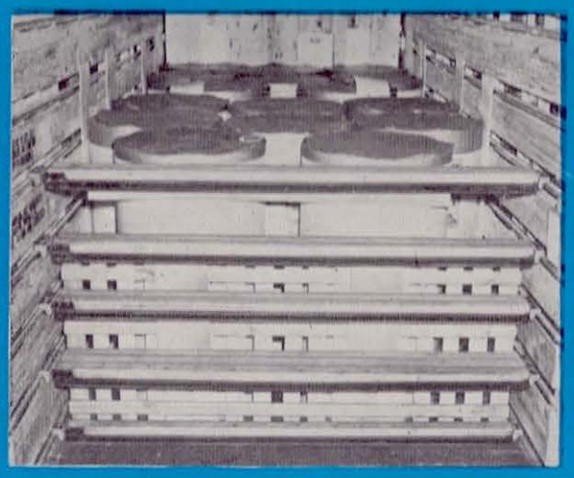
International's Bulk-Lading Side Door. Requires **no** inside grain door • • • and has an access door for loading, inspection and sampling. ***Positive retainment on the car structure.***



International's ALL-WELDED BOX-CAR SIDES. Delivered **ready to assemble,** to car owners who assemble their own cars. ***Maximum welded attachment to the side plate and side sill upper elements.***

INTERNATIONAL STEEL CO. **RAILWAY DIVISION**

Evansville 7, Indiana



How the Evans DF Loader saves money for railroads and shippers

by carrying heavy, hard to handle loads like paper

Difficult loads like paper arrive in perfect condition with the Evans DF Loader—the Damage Free, Dunnage Free Loader. Savings in damage average $35.40 on every car, often run much higher on fragile loads like glass, furniture, electrical appliances.

The Evans DF Loader also saves shippers an average of $46.50 in dunnage. From floor to roof, from end to end, sturdy cross bars and combination deck boards and bulkheads separate, support and lock the load in the box car. Result: fast loading, prompt unloading, undamaged lading, car walls and floors. Cars carry bigger loads, too—up to 200% heavier. Carrier and shipper save a total of $81.90 on the average load with the Evans DF Loader—the Damage Free, Dunnage Free Loader—the one general purpose Loader for every box car shipment.

Evans Products Company, Railroad Loading & Equipment Division, General Offices: Plymouth, Michigan. Plants: Plymouth, Mich.; Coos Bay, Ore.; Vancouver, B. C.

EVANS ***LOADING AND RAILROAD EQUIPMENT***

RETURNS REVENUE TO THE RAILS

FOR SAFETY

101 ALL NEW INSPECTION CAR

+ *Immediate Reverse*
+ *Wheel Silencers*
+ *Low Lifting Weight*

THIS IS THE CAR WITH MORE SAFETY FEATURES!

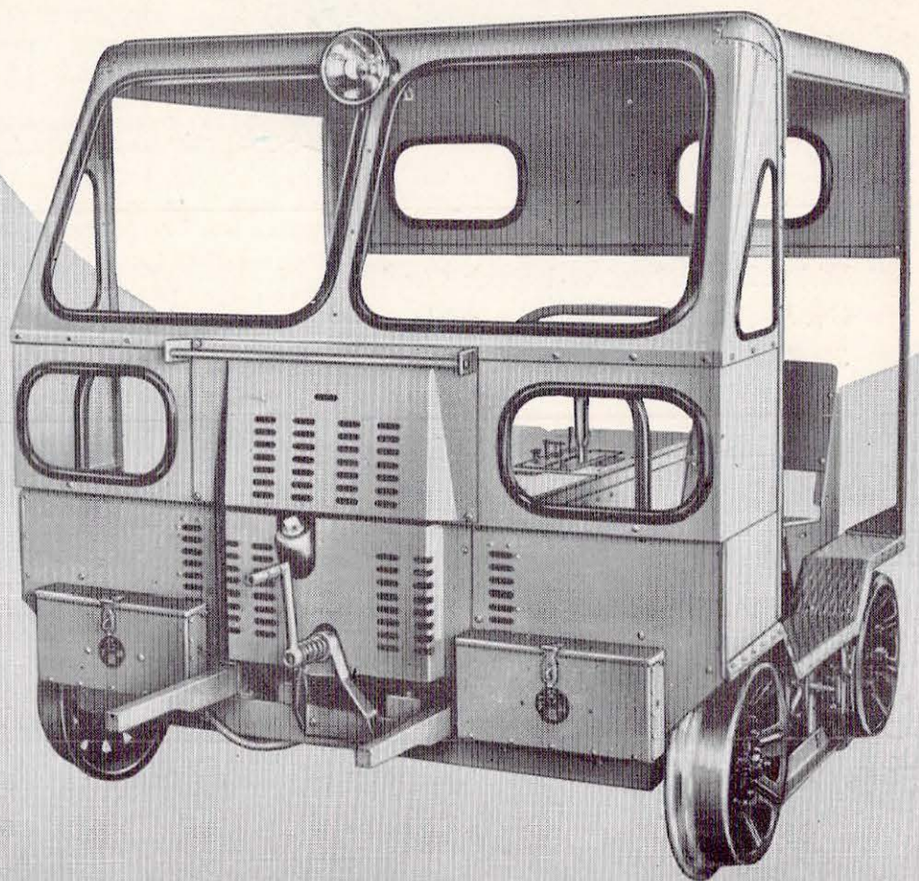
More safety makes for more efficiency with the new Model 101 inspection car. With its simple friction drive transmission—four speeds forward, three reverse—it's a pleasure to operate. Low center of gravity helps it hug the rails. Full-vision cab* means more comfort, too. Rear lifting weight is only 98 pounds. All in all, the 101 is a 4-man car that should be investigated by every railroad. See your Fairbanks-Morse representative or write Fairbanks, Morse & Co., Chicago 5, Ill.

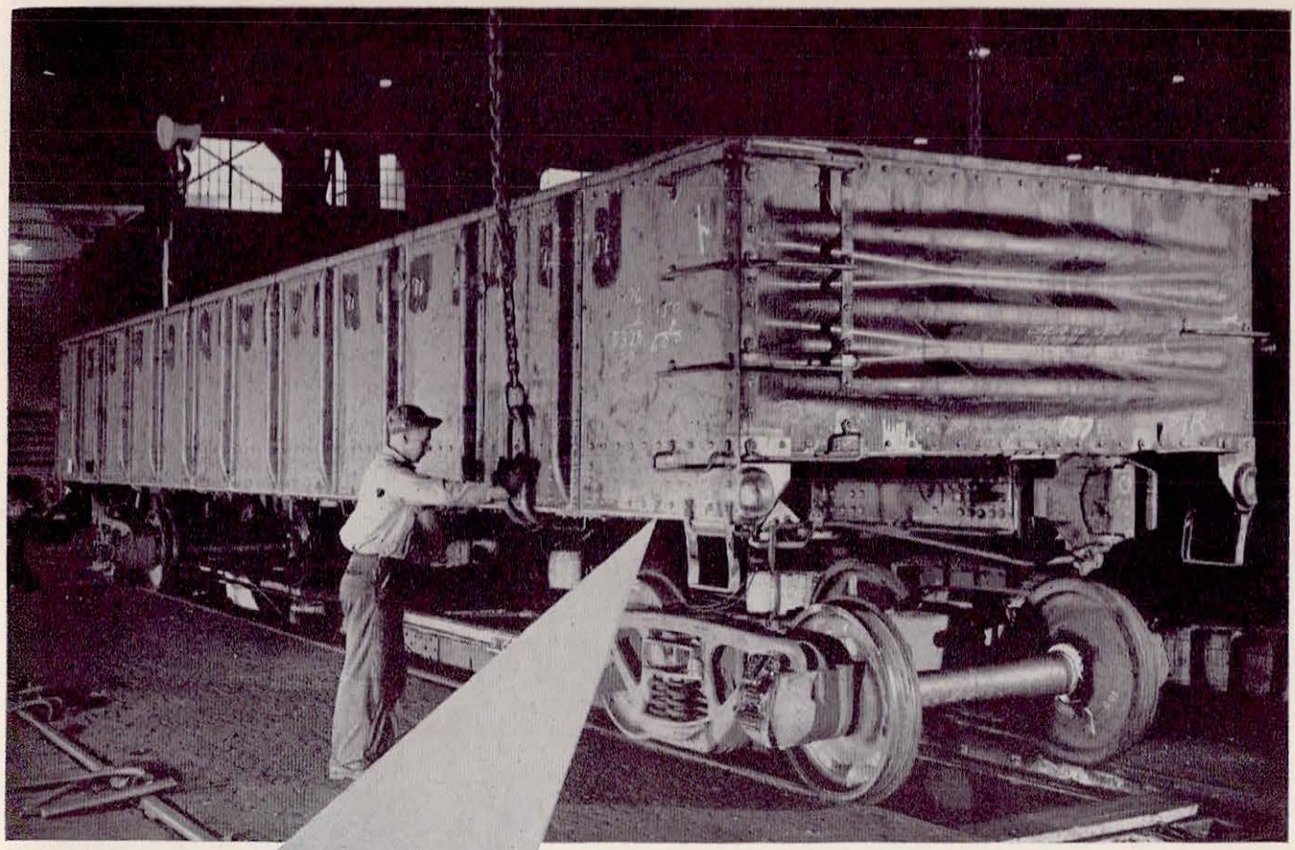
*Also available without cab.

FAIRBANKS-MORSE

a name worth remembering

RAILROAD EQUIPMENT • RAIL CARS • PUMPS • SCALES • ELECTRICAL MACHINERY
DIESEL AND DUAL FUEL ENGINES • DIESEL LOCOMOTIVES • MAGNETOS





IT TAKES LESS STEEL WHEN YOU USE Mayari R

When you build railway cars with Mayari R, thinner-gage steel can be used. Underframes can be lighter. Deadweight can be trimmed from sides, ends, floors and body members. All of these advantages are gained without sacrificing strength, because Mayari R allows the use of higher working stresses.

Consider the mechanical properties of Mayari R: It has almost double the yield point and 5 times the atmospheric corrosion-resistance of structural carbon grades. It has better resistance to fatigue, impact and abrasion. And as far as workability is concerned, Mayari R can be fabricated like carbon steel in the as-rolled condition. It can be worked and welded with ordinary shop equipment.

For more information on the use of this low-alloy, high-strength, weight-saving steel, we suggest that you write for a copy of Catalog 259. It explains the properties of Mayari R in detail, and shows examples of deadweight reduction in railway equipment.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

On the Pacific Coast Bethlehem products are sold by
Bethlehem Pacific Coast Steel Corporation
Export Distributor: Bethlehem Steel Export Corporation

BETHLEHEM STEEL

Mayari R *makes it lighter... stronger... longer lasting*

FOR SAFETY

+ *Immediate Reverse*
+ *Wheel Silencers*
+ *Low Lifting Weight*

THIS IS THE CAR WITH MORE SAFETY FEATURES!

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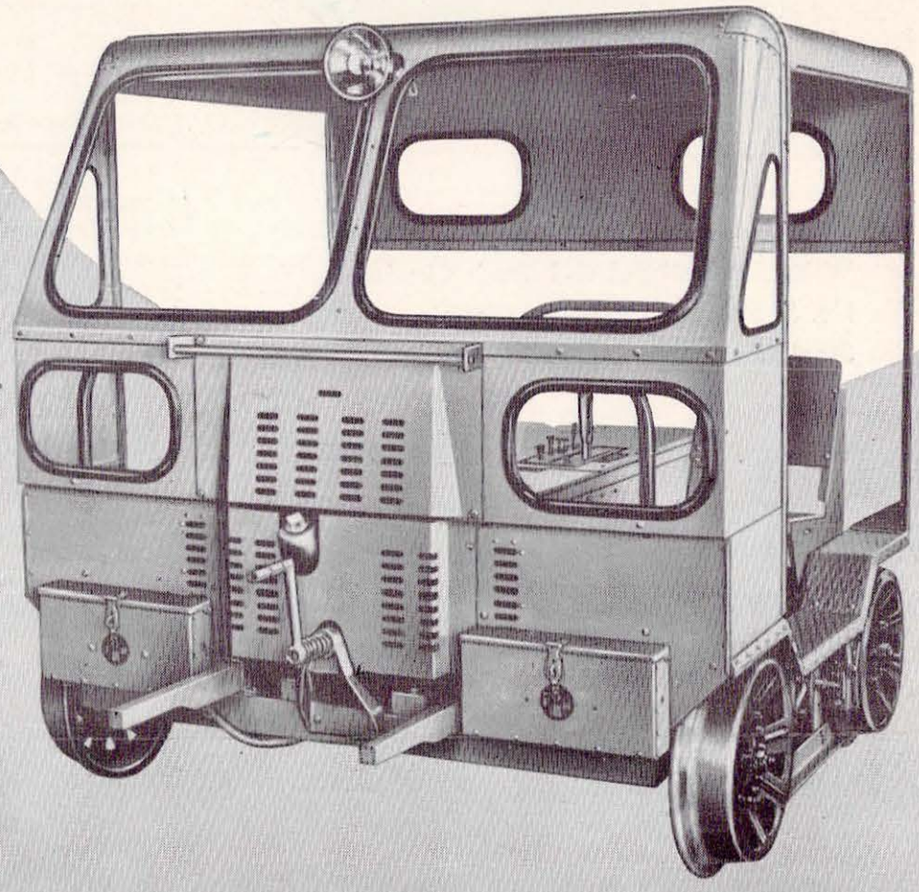

Seven basic design and construction advantages of National C-1 Trucks help you deliver merchandise on time and in good order—for greater good will from your shippers and receivers.

For a smoother, safer ride . . . depend on NATIONAL Lading-Conscious C-1 Trucks—they protect your equipment, your roadbed and the interests of your customers.

NATIONAL

1. **Quick Easy Visual Inspection**—Gives immediate assurance that friction control mechanism is functioning properly, without time delays or cost of handling or removing a single part.
2. **Friction Mechanism In Side Frame**—Simplifies control of lateral and vertical truck motion.
3. **Large Wedge Bearing Surfaces**—Wear is minimized because bolster is protected by hardened-steel wear plates.
4. **Low-Stressed Wedge Springs**—Low-rate wedge springs are cold-wound and shot-peened for extra fatigue resistance.
5. **Full Box-Section Bolster**—Bolster has maximum strength and rigidity because it is a full box-section from end to end . . . is not recessed or notched for friction control mechanism.
6. **Spring Deflections**—Springs of 2½, 3 1/16, 3 11/16 or 4-inch deflection can be used.
7. **Wedge Aligning Lugs**—Four wedge aligning lugs integrally cast in the top of each journal box protect journal bearing lugs against peening and breaking.

Write for National C-1 Truck Circular No. 5150. The National Malleable and Steel Castings Co., Cleveland 6, Ohio.

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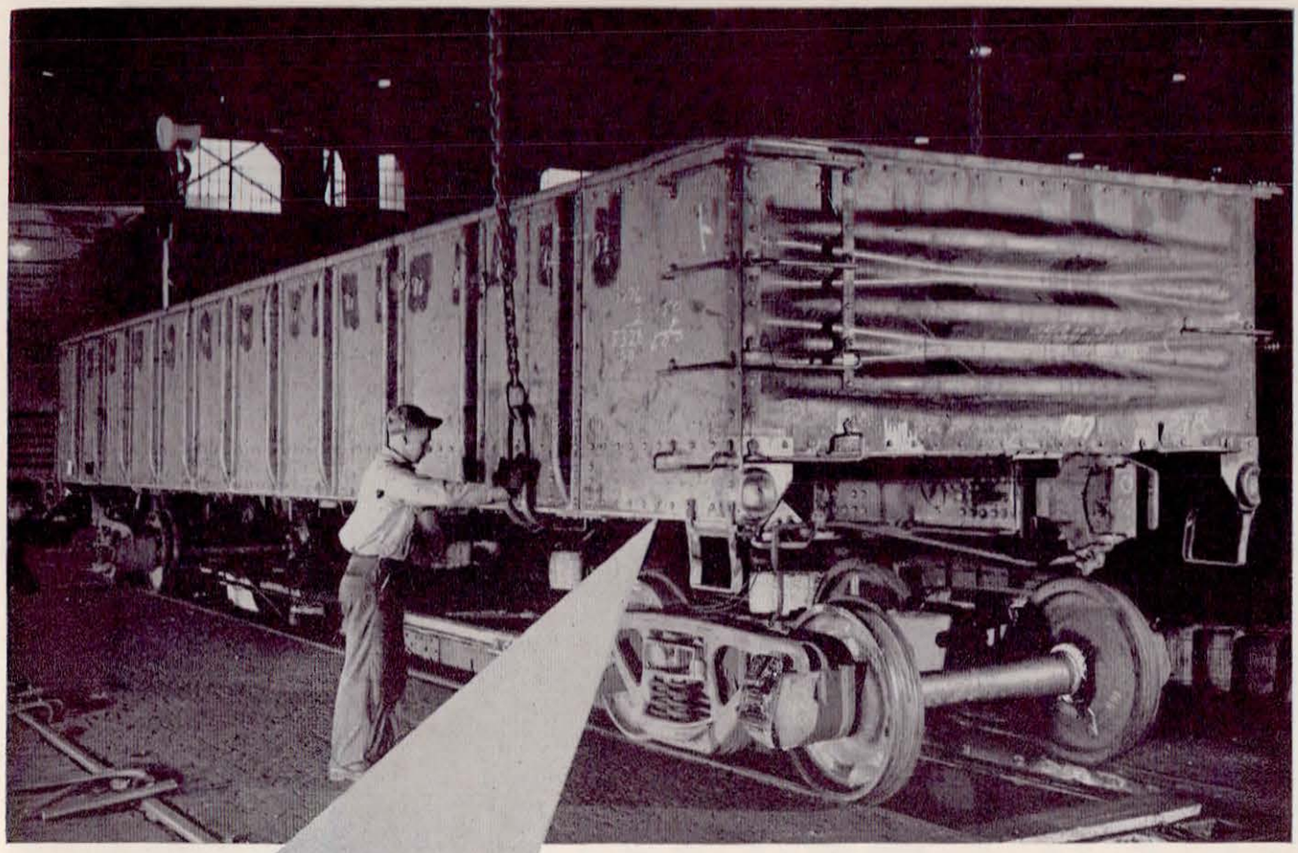

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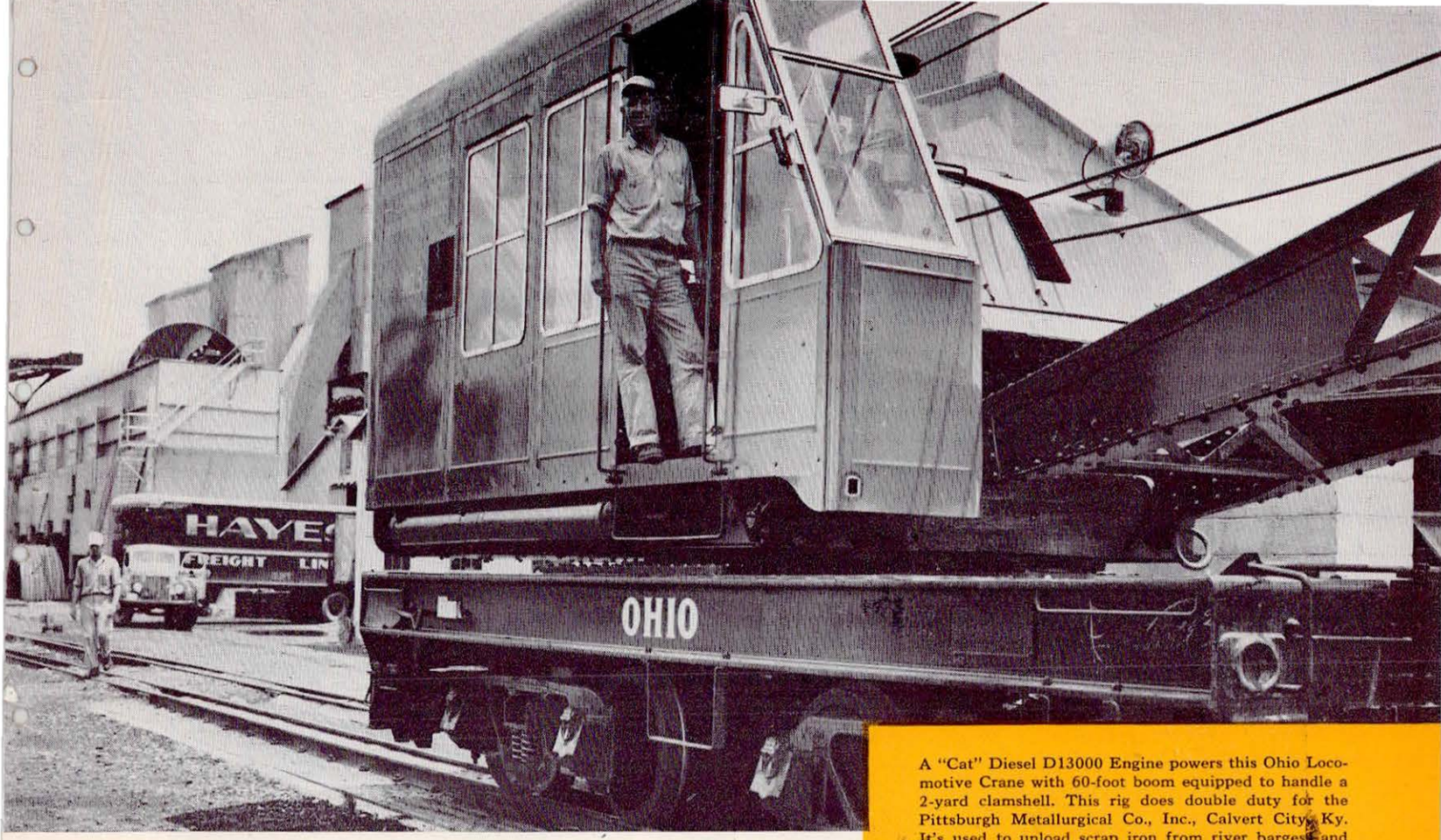
BETHLEHEM STEEL

Mayari R *makes it lighter... stronger... longer lasting*



A "Cat" Diesel D13000 Engine powers this Ohio Locomotive Crane with 60-foot boom equipped to handle a 2-yard clamshell. This rig does double duty for the Pittsburgh Metallurgical Co., Inc., Calvert City, Ky. It's used to unload scrap iron from river barges and works as a switcher when the regular locomotive is not available. Operator O. B. Capp says: "I've operated 'Caterpillar' equipment for over 19 years and I say when a better industrial engine is built, 'Caterpillar' will build it."

There's a big job ahead

How your engines stand up in the months ahead is important to the whole defense effort of the free world. Railroads are life lines — our country depends on them to shoulder tremendous transportation and material handling loads vital to survival. And we're entering a period when equipment must stand up or else!

Look at the engine field. Military and Defense Rated Orders are taking their share of "Caterpillar" production. Shortages of steel and other materials make it still more difficult to supply all the new machines required. This means that *much present equipment must be kept in use.*

"Caterpillar" Railroad Diesels are built to handle rugged duty with high availability. On-the-job records prove their dependability under tough going. They're engineered to serve you long and faithfully. *How* long is up to you. Good care pays off in longer wear.

You can add many hours to engine life if you follow sound maintenance practices. Anticipate your parts needs. Let your "Caterpillar" dealer help you. If a part is not readily available, he has the knowledge, tools and facilities to rebuild many worn parts.

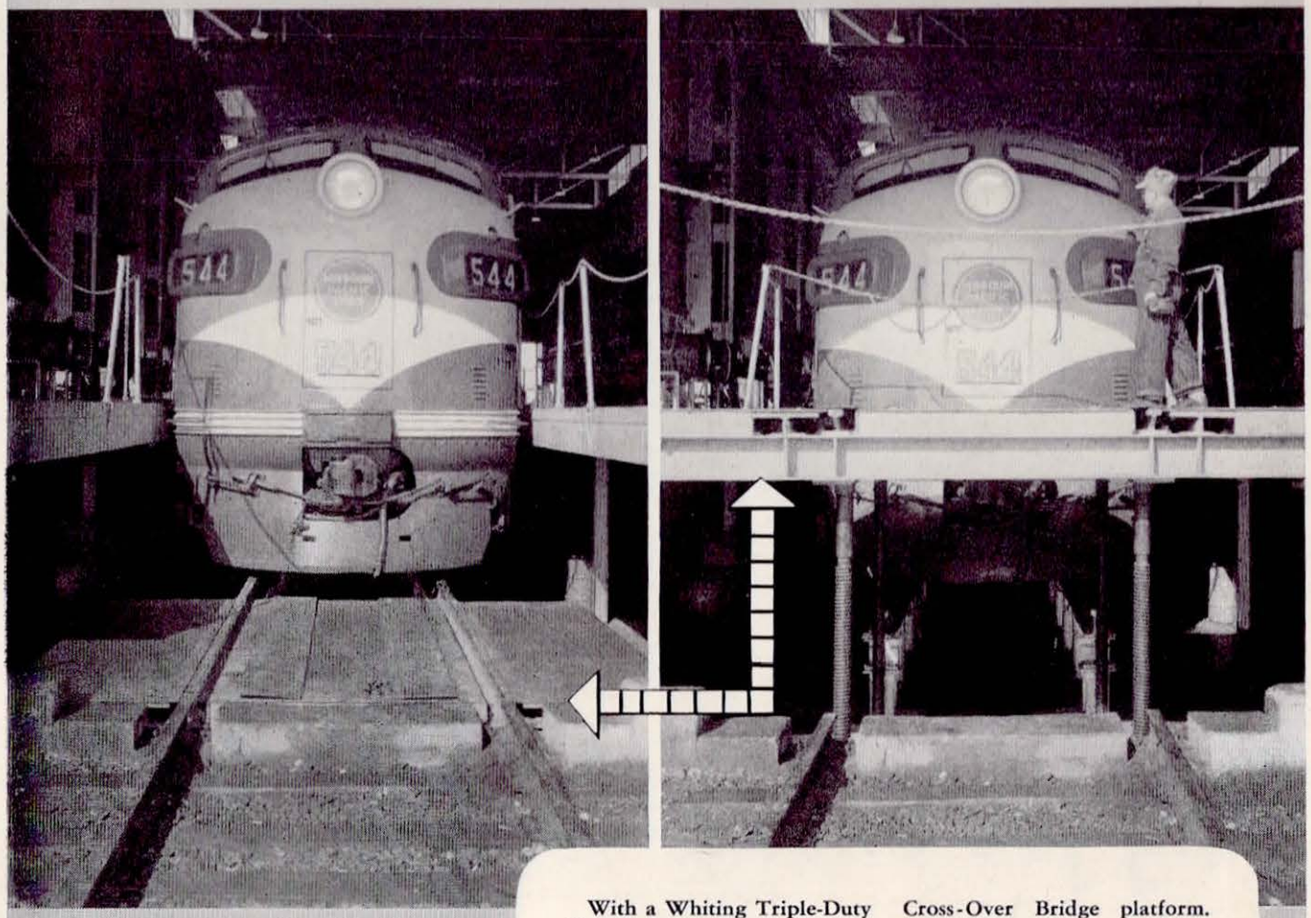
CATERPILLAR, PEORIA, ILLINOIS

You're the Doctor

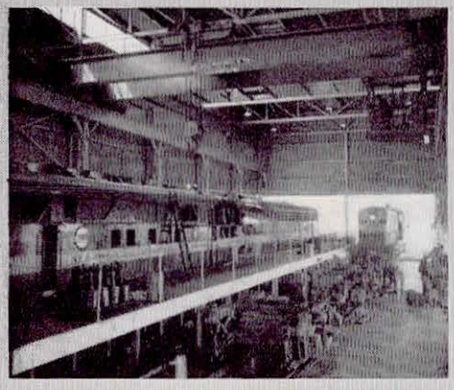
Don't let your engine overheat. Maintain the cooling system, keeping it free of scale, rust and sediment. Use soft or treated water and, when freezing temperatures exist, protect your engine with anti-freeze. Clean the radiator periodically, removing foreign matter from the core by brushing or washing. Use chemical flushing solutions. Prevent engine troubles which come with overheating. Consult your Operator's Instruction Book.

CATERPILLAR
REG. U. S. PAT. OFF.
RAILROAD DIESELS

GIVE 'EM THE "RUN AROUND" THAT SAVES TIME
a WHITING CROSS-OVER BRIDGE



Photos Courtesy Missouri Pacific



An interior view of the Missouri Pacific's newly completed Diesel repair shop at Houston, Texas. Its up-to-date service equipment includes a Whiting 30-ton Overhead Crane, Model "BW", Drop Table, and Whiting Triple-Duty Cross-Over Bridge.

With a Whiting Triple-Duty Cross-Over Bridge, you can get full use of end space in your shop. Trucking units can run around both ends of the shop when the Cross-Over Bridge platform is in raised position, and workers can move freely from side to side. At the same time, there is complete freedom of movement with plenty of head room at the depressed floor level.

Rails are embedded in the Cross-Over Bridge platform. When lowered to track level, these rails coincide with the shop track, allowing locomotives to be moved in or out of the shop. Controlled by push buttons and limit switches.

The Whiting Cross-Over Bridge actually adds more productive man power to your shop by eliminating the time consumed climbing stairs and ramps or crawling over tracks. Write for details.

WHITING CORPORATION

15603 Lathrop Avenue, Harvey, Illinois

RAILROAD MAINTENANCE EQUIPMENT

Offices in Chicago, Cincinnati, Cleveland, Detroit, Houston, Los Angeles, New York, Philadelphia, Pittsburgh, St. Louis, and Seattle. Representatives in other principal cities. Canadian Subsidiary: Whiting Corporation (Canada) Ltd., Toronto, Ontario. Export Department: 30 Church Street, New York 7, N. Y.

Exide-Ironclad BATTERIES

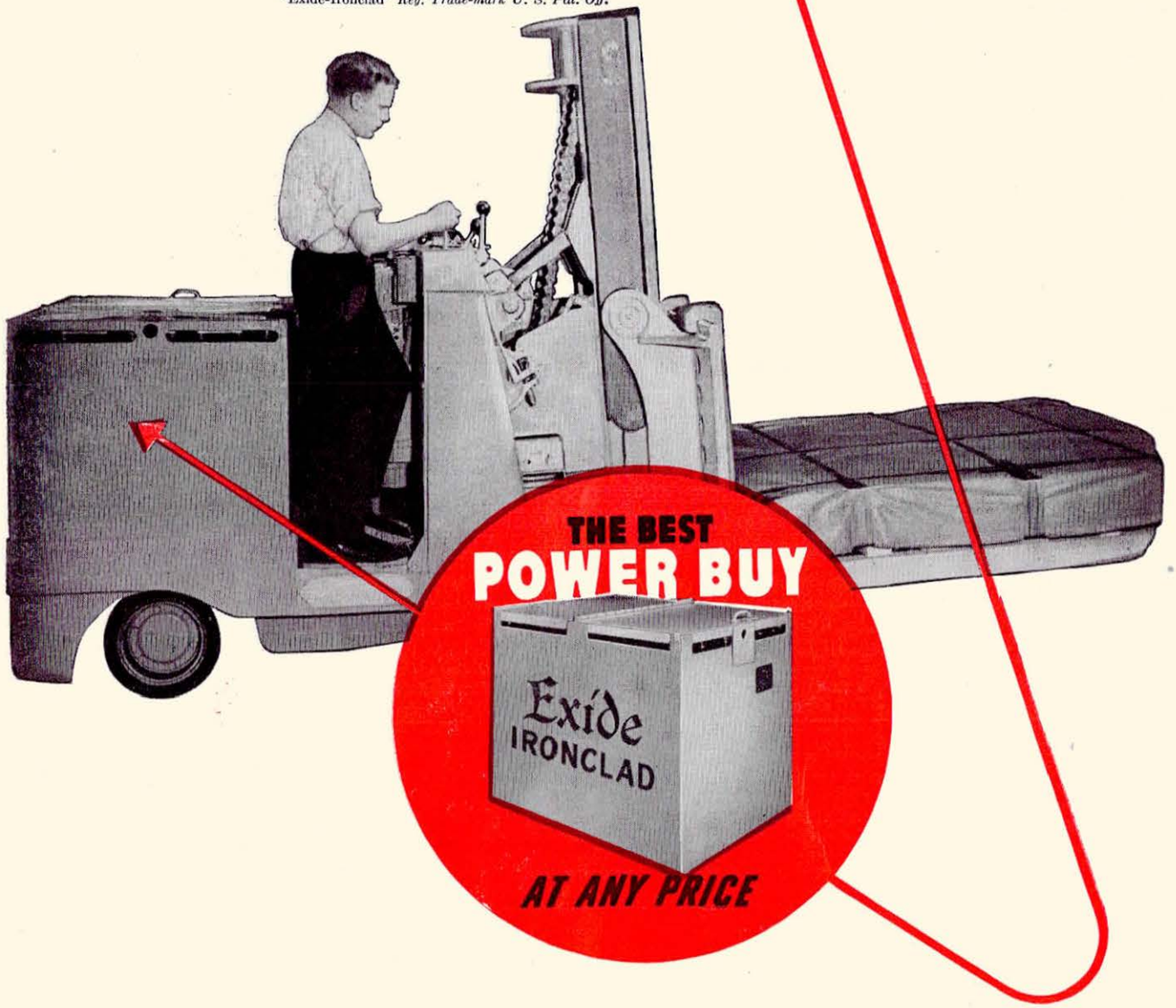
ARE YOUR BEST POWER BUY— AT ANY PRICE

They ASSURE high maneuverability of trucks . . . rapid, accurate handling of material. PROVIDE uniform rate of material handling with no unscheduled down time. SHOW lowest costs of operation, maintenance, repair, depreciation . . . inherently safe. Call in an Exide representative, and let him prove these facts.

THE ELECTRIC STORAGE BATTERY COMPANY
Philadelphia 2

Exide Batteries of Canada, Limited, Toronto

"Exide-Ironclad" *Reg. Trade-mark U. S. Pat. Off.*



DOORS • SIDE PANELS
BULKHEADS and PARTITIONS
in This Luxury Car are *73% Lighter*
Than Standard Steel Construction . . .

...because they are MET-L-WOOD

METAL BONDED TO PLYWOOD

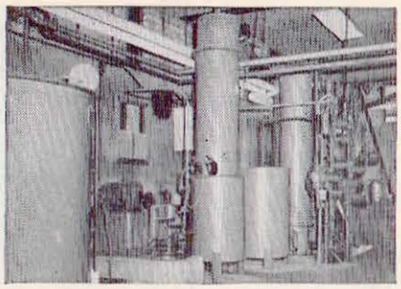
● Met-L-Wood, used in passenger cars, locomotives and baggage cars cuts deadweight to a minimum consistent with specified strengths, stiffnesses and durability. As an example, Type 2P2-3/8" Met-L-Wood, used in side panels and partitions has the stiffness of 1/4" steel plate—yet weighs only 2.6 lbs./sq. ft. as against 10 lbs./sq. ft. for 1/4" steel plate!

Whether you require prefabricated Met-L-Wood units to your specifications, or can use stock sizes and finishes, the basic utility and economy of Met-L-Wood for railroad rolling stock construction is worth investigating . . . today. Write for details on your specific requirements. Our engineering staff will gladly assist you in adapting Met-L-Wood versatility to your needs.

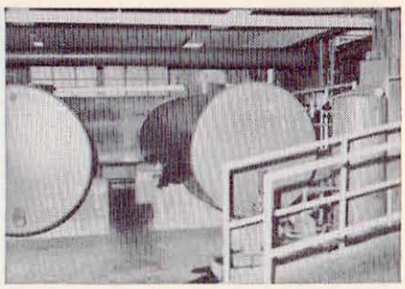
MET-L-WOOD CORPORATION

6755 West 65th Street, Chicago 38, Illinois

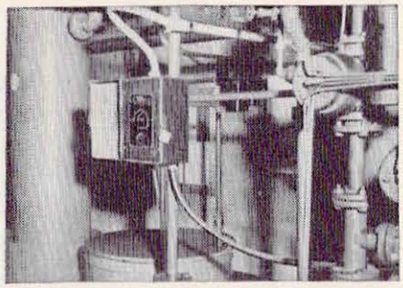
MET-L-WOOD · *STRONG . . . LIGHT . . . Smooth Finish . . . Sound Deadening . . . Fire-Resisting . . . Insulating*



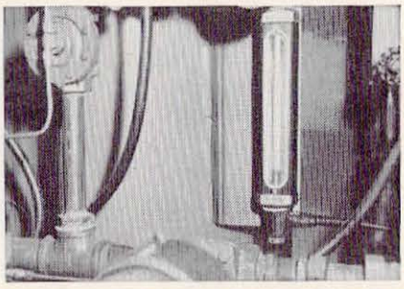
1. From left: rust inhibiting solution tank; pump; decarbonator; regenerant solution tank; anion exchange—absorber tank.



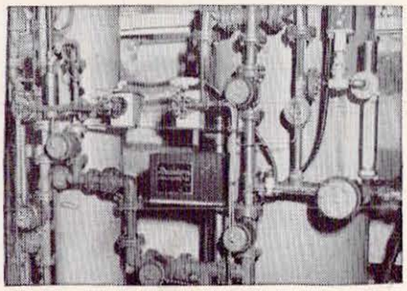
2. 2,500-gal. storage tanks from which water is delivered, by centrifugal pump and pressure tank, to outlets in the Diesel shop.



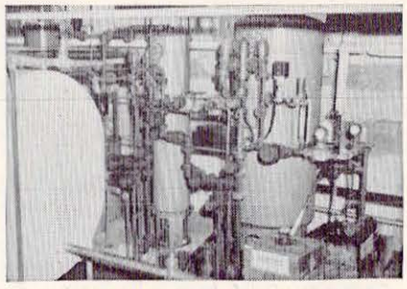
3. Solu-Bridge determines dissolved mineral content of the effluent from anion tank—either accepting or rejecting the water.



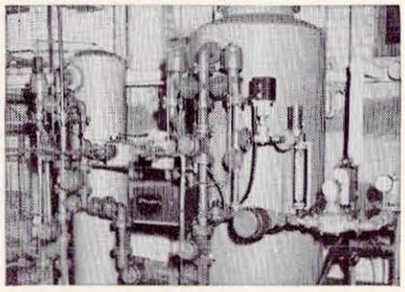
4. Device resembling a water gauge is the Flowrator which proportions sulphuric acid solution for regenerating cation exchanger.



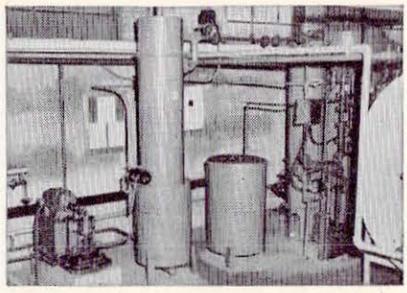
5. Proper intervals are determined by electric timer to automatically position air valves in completing backwash operation.



6. Concentrated sulphuric acid is diluted in proper proportion by automatic regulating valves, flow-control devices and Flowrator.



7. Controls "fail safe." Air supply failure automatically closes inlet valve. Solenoid air valve closes inlet valve should electric power fail.



8. Solu-Bridge tests purity—only water of predetermined mineral content enters decarbonator. Sub-standard water flows down drain.

DEARBORN DESIGNS FULLY AUTOMATIC DE-IONIZING PLANT

Electric and Pneumatic Controls Measure Purity of Water

ONLY PERIODIC INSPECTION BY SINGLE ATTENDANT NECESSARY

The new, automatic Dearborn de-ionizing system, installed in the recently built Bensenville Diesel shop, provides the Chicago, Milwaukee, St. Paul and Pacific these distinct advantages:

- Fully automatic operation, including regeneration cycles, assuring sufficient quantities of de-ionized water even though plant attendant is off duty. *This is important because 40-hour week requires that plant function without attention for one, two and sometimes three days.*
- Automatic measurement of water purity. If accepted, water is passed on to storage tanks—water not passing quality standard is rejected.
- Purity controls of the system are adjustable to detect changes in water quality.
- Controls designed to "fail safe." In event of air pressure or electric power supply failure, plant automatically shuts down until failure is corrected.

Dearborn Engineers are specialists in designing de-ionizing systems to exactly fit the requirements of your railroad.

WRITE FOR BOOKLET

A copy of "Dearborn De-Ionizing Systems," containing valuable information about how to economically secure the mineral-free water you need, will be sent on request.

DEARBORN CHEMICAL COMPANY

Merchandise Mart Plaza • Chicago 54, Illinois

Dearborn Chemical Company, Dept. RA
Merchandise Mart Plaza, Chicago 54, Ill.

☐ Please send booklet, "Dearborn De-Ionizing Systems."
☐ Have a Dearborn Engineer call.

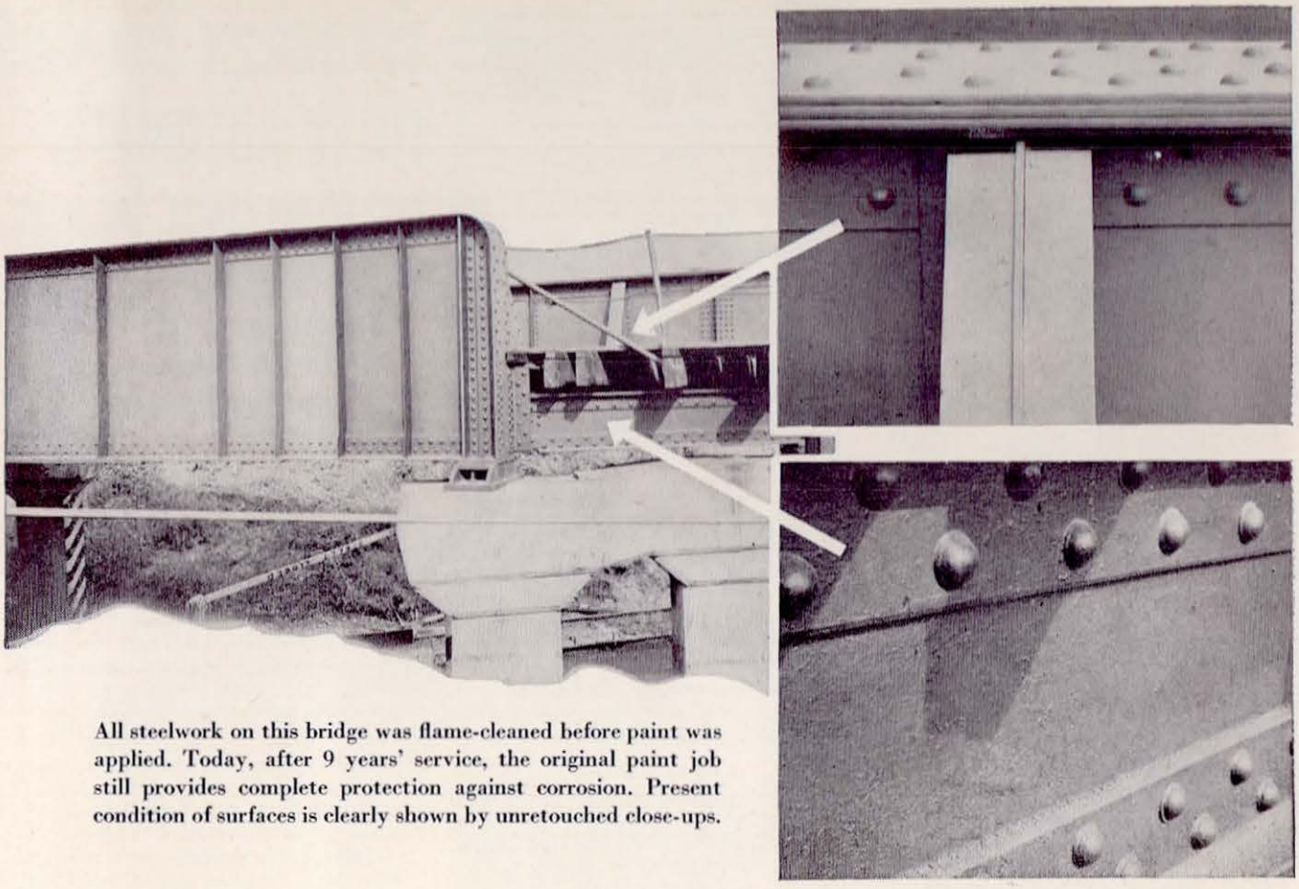
Name.....

Railroad.....

Address.....

City.....*Zone*....*State*.....

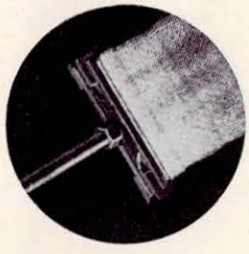
Dearborn
TRADE MARK REGISTERED
THE LEADER IN WATER TREATMENT AND RUST PREVENTIVES



All steelwork on this bridge was flame-cleaned before paint was applied. Today, after 9 years' service, the original paint job still provides complete protection against corrosion. Present condition of surfaces is clearly shown by unretouched close-ups.

Your Steelwork . . .

How Will It Look in 1960?



Steelwork you coat with good paint today can still look like new ten years from now, *if you flame-clean all exposed surfaces first.* And what you'll save on maintenance, because of increased protection due to flame-cleaning, should more than pay for all the apparatus and materials you need for the job.

Flame-cleaning is simple to do, requires little equipment, and costs little. A brush of oxy-acetylene flames pops off scale and drives out moisture. Paint applied to the warm, dry surface goes on quickly and smoothly, bonds tightly, and lasts longer.

Flame-cleaning is only one of many time- and moneysaving OXWELD methods developed as a result of working with American railroads for more than a third of a century. So, whatever your problem, whether it's in the shop or out on track, there is a good chance that OXWELD know-how, show-how, and equipment can help you do it better, quicker, and at lower cost.

P. S. Send for additional information on flame-cleaning.

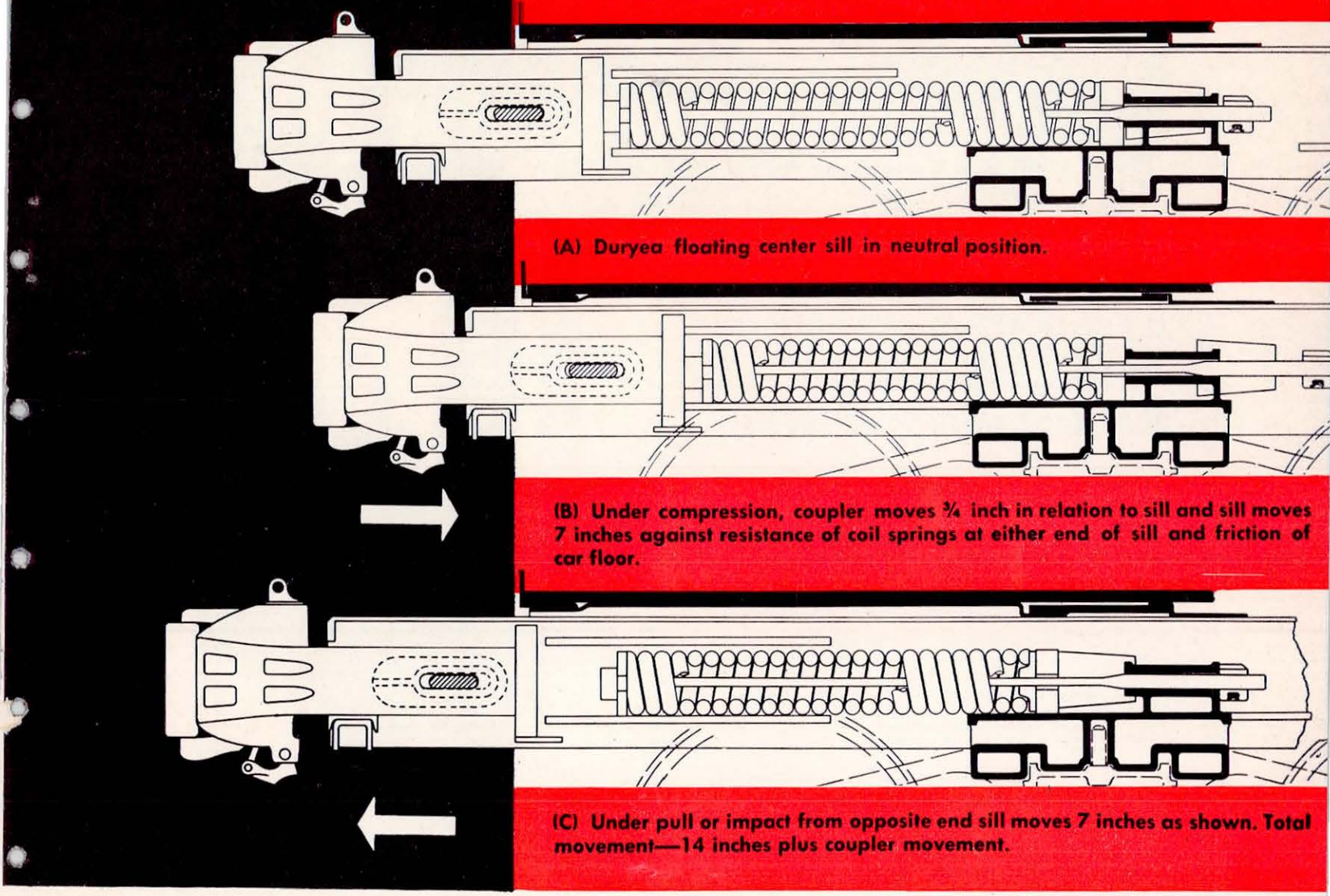
OXWELD RAILROAD SERVICE COMPANY
A Division of Union Carbide and Carbon Corporation
UCC
Carbide and Carbon Building Chicago and New York
In Canada:
Canadian Railroad Service Company, Limited, Toronto

OXWELD RAILROAD SERVICE

SINCE 1912—THE COMPLETE OXY-ACETYLENE SERVICE FOR AMERICAN RAILROADS

The term "Oxweld" is a registered trade-mark of Union Carbide and Carbon Corporation.

THE CUSHIONING EQUIPMENT THAT PROVIDES LADING PROTECTION



(A) Duryea floating center sill in neutral position.

(B) Under compression, coupler moves ¾ inch in relation to sill and sill moves 7 inches against resistance of coil springs at either end of sill and friction of car floor.

(C) Under pull or impact from opposite end sill moves 7 inches as shown. Total movement—14 inches plus coupler movement.

DOUBLE ACTION! Double Capacity! 40% extra lading protection! That's what you get when freight cars are safeguarded with Duryea Cushion Underframes.

How? Why? The Duryea Cushion Underframe is unique. A floating center sill, it moves under impact while the car stands still. Subjected to the thrust of a moving car, the sill starts to move but movement is immediately resisted by coil springs within the sill at either end and also by the frictional resistance of the sill against the deflection of the loaded car. There is a maximum sill travel of seven inches in either direction.

In consequence of this unique Duryea design, shock transference to car structure is extremely low . . . for a loaded car coupled at 5 miles per hour, only 16% of the transference resulting when cars are equipped with conventional draft rigging.

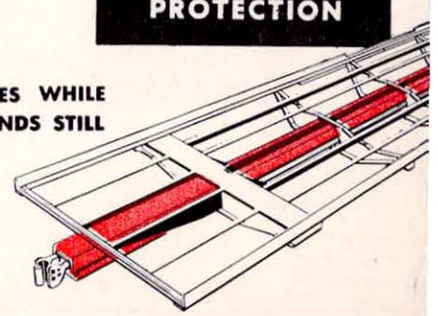
For less lading damage, longer car life, more in-service time and consequent greater car revenue, specify Duryea Cushion Underframes on all new cars.

HULSON CO. 332 SOUTH MICHIGAN AVENUE CHICAGO 4, ILLINOIS

THAT **40%** EXTRA LADING PROTECTION

duryea
cushion underframe

THE SILL MOVES WHILE THE CAR STANDS STILL



Buy the right HYSTER® 20 to fit your particular job

The *right* Hyster 20 lift truck, with the *right* attachments, tools and accessories, becomes the greatest cost cutting machine in the entire field of materials handling equipment.

6 variations of one basic model...select the one that best suits your needs

What lifting and transporting capacity do you require from a lift truck? In the HYSTER 20 you can have a model with—

1) **2000 lbs.** capacity at 15" load centers (Standard Hyster 20)
2) **2000 lbs.** capacity at 24" load centers (Optional additional counterweight added to Standard 20)
3) **1300 lbs.** capacity at 15" load centers (Skeleton counterweight)
4) **1000 lbs.** capacity at 24" load centers (Skeleton counterweight)
5) **2000 lbs.** capacity at 15" load centers (Skeleton counterweight plus optional additional counterweight)
6) **1500 lbs.** capacity at 24" load centers (Skeleton counterweight plus optional additional counterweight)

Where the transporting of 2000 lbs. on 24" load centers is a prime requirement, the installation of the additional optional counterweight to the standard 20 model achieves the necessary result.

The Hyster 20 with skeleton counterweight is of great importance where floor load limits exist; where elevator lifting capacities are materials handling factors; and where a high percentage of the loads are in the 1000 lb. range.

By quickly installing the additional optional counterweight to this same Hyster 20 with skeleton counterweight, lifting capacities are increased from 1300 lbs. to 2000 lbs. at 15" load centers; and increased from 1000 lbs. to 1500 lbs. at 24" load centers. This gives the owner a 2 in 1 lift truck combination.

Why carry around extra weight?

The Hyster 20 for 1300 lbs. at 15" load centers or 1000 lbs. at 24" load centers has a skeleton counterweight that reduces the weight of the standard Model 20 by 600 lbs. This light weight but heavy duty fork lift truck will cut maintenance and operating costs; yet it will provide the maximum lifting and transporting capacities required in a great many industries.

The additional optional counterweights can be installed in less than 30 minutes; removed in much less time.

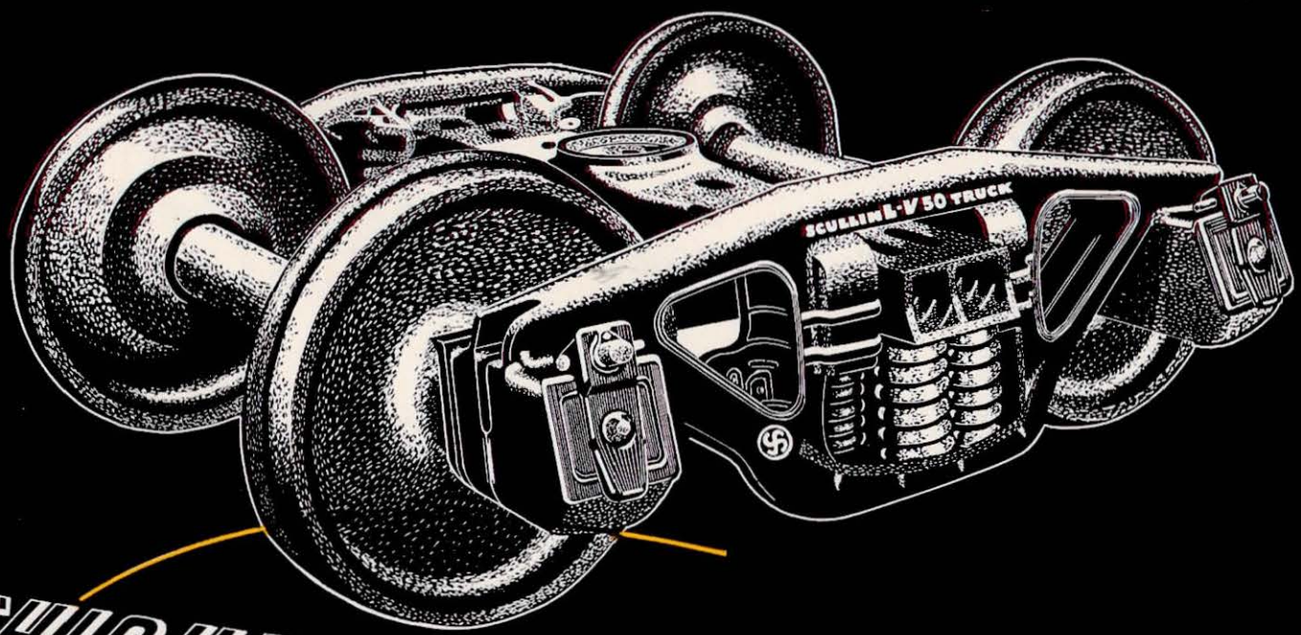
See your Hyster dealer for further information.

HYSTER COMPANY

THREE FACTORIES

2932 N. E. CLACKAMAS ST.... PORTLAND 8, OREGON
1832 NORTH ADAMS STREET... PEORIA 1, ILLINOIS
1032 MEYERS STREET..... DANVILLE, ILLINOIS

HYSTER



"HIGHBALL!"

you're sure high speeds are safe on SCULLIN L 50 V TRUCKS

LATERAL VERTICAL CUSHIONED MOTION

THE SMOOTHEST TRAFFIC-BUILDERS BETWEEN LCL AND YOUR RAILS

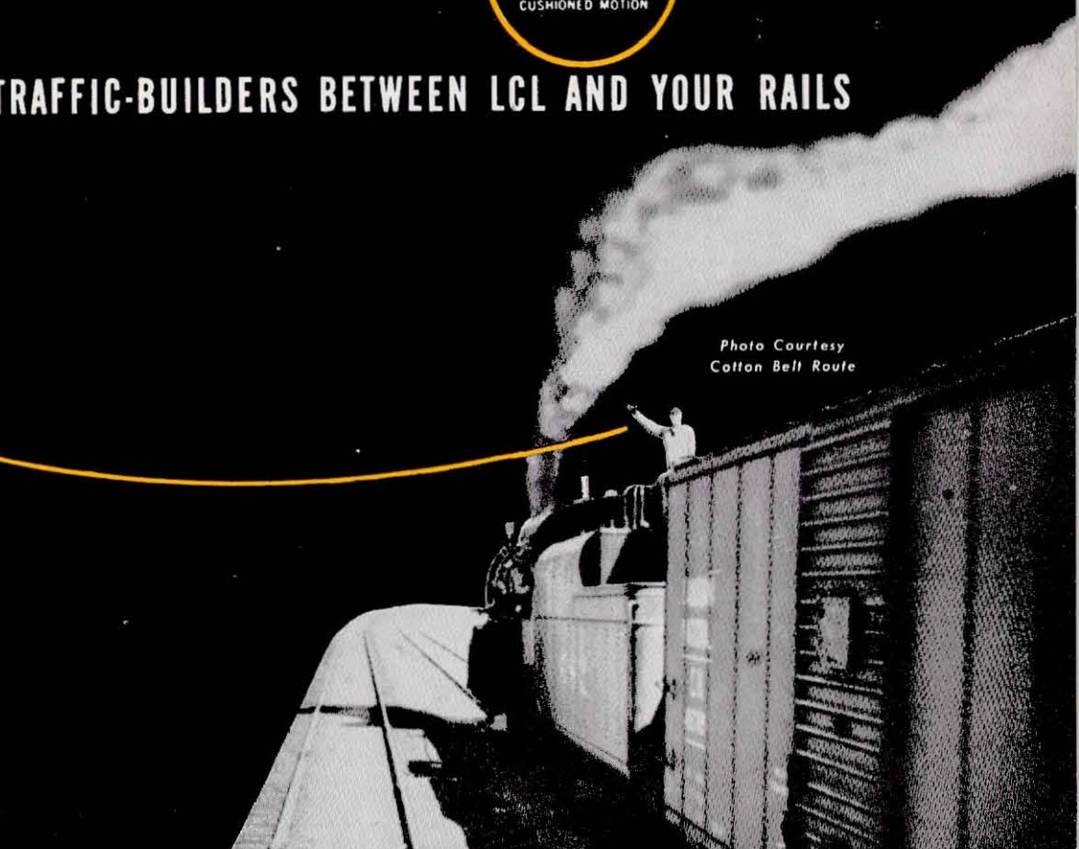


Photo Courtesy Cotton Belt Route

STEEL CASTINGS MANUFACTURER

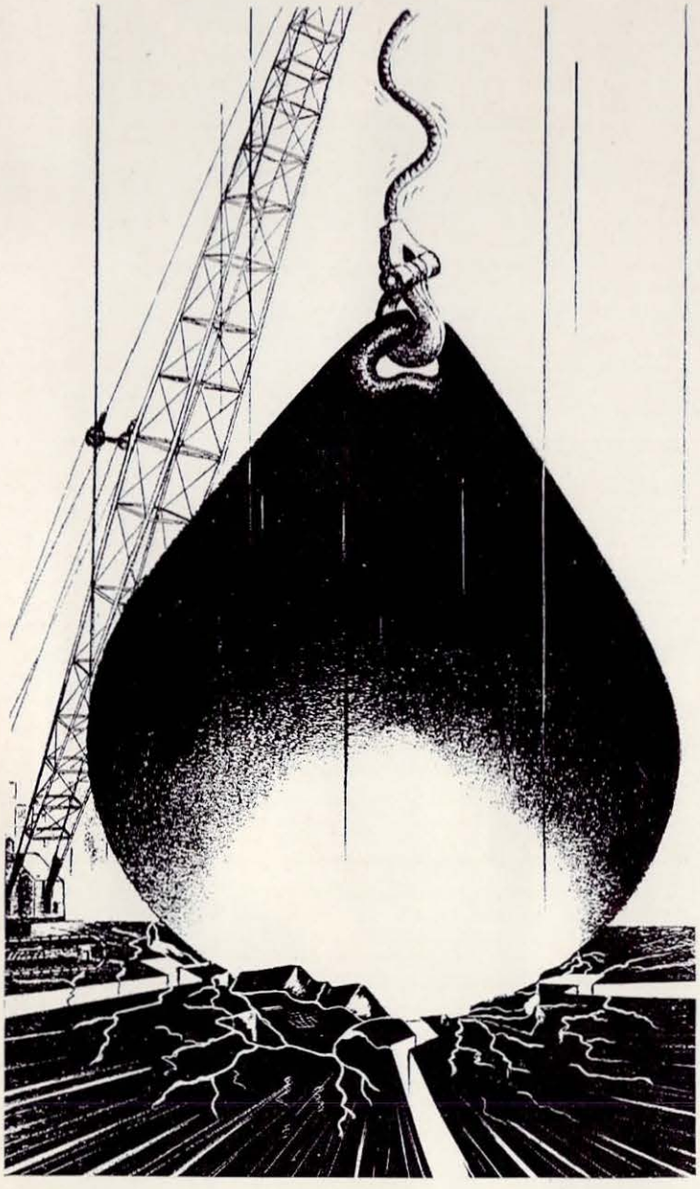
NEW YORK
CHICAGO
BALTIMORE
RICHMOND, VA.

SCULLIN STEEL CO.

SAINT LOUIS 10, MISSOURI

one BIG shock

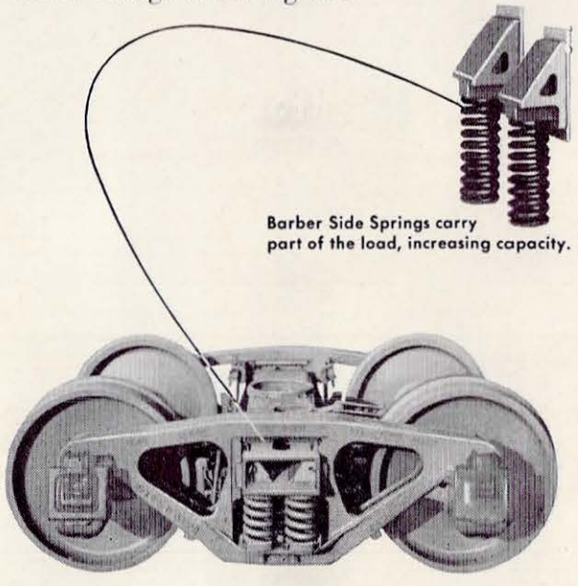
does more damage than a lot of little ones!



Fewer heavy shocks are passed on to the car and lading by patented *Barber Stabilizers* than by other systems of spring control. That's why Barber Trucks ride better.

This fact becomes clear when (1) a study is made of the Test Data of the Base Car and compared with ANY Test Figures which have been sent to you; and when (2) an Analysis is made of the Savings in Damage Claims on Barber-equipped cars.

It takes a whale of a lot of little shocks to do as much damage as one big one.



Barber Side Springs carry part of the load, increasing capacity.

Over 290,000 Car Sets of BARBER STABILIZED TRUCKS have been specified

STANDARD CAR TRUCK COMPANY
332 SOUTH MICHIGAN AVE., CHICAGO, ILL.

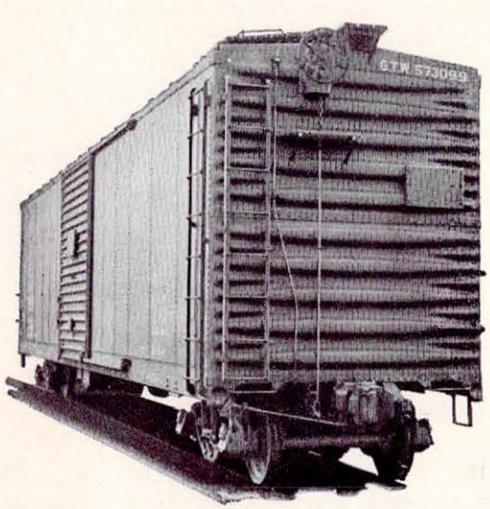
5552 RR

Equipment–for the road ahead

Seldom have American railroads been faced with a greater or more important job. More and more goods must be hauled as our civilian economy and military program expand. Larger fleets will be necessary. Obsolete and worn out equipment must be replaced.

Pressed Steel Car Company manufactures standard and custom built box cars, refrigerator cars, gondola and hopper cars famous for efficient performance on every major road in America.

We suggest you bring your requirements to us and make sure you are equipped and *prepared* for the road ahead.

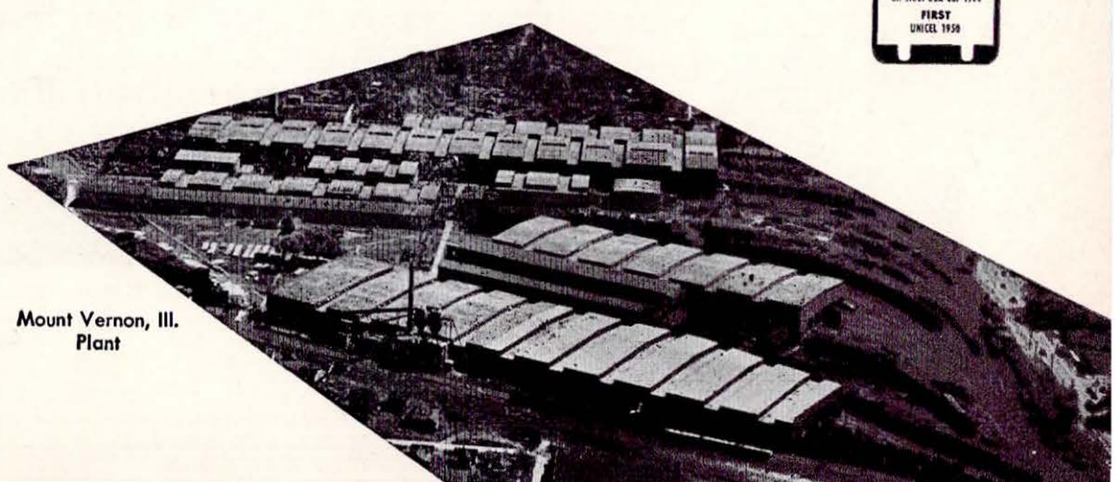


PSC

PRESSED STEEL CAR COMPANY, Inc.

6 No. Michigan Ave.
Chicago, Ill.

FIRST all steel hopper car 1897
FIRST all steel box car 1914
FIRST UNICEL 1950



Mount Vernon, Ill.
Plant

IT took 57,000 tons of steel to build the Empire State Building in New York. That's about one-tenth of one percent of the tonnage of scrap required to produce the new steel demanded for America's defense and civilian needs this year.

Half of this scrap is produced by the steel mills themselves. The other half - approximately 26 million tons - must be supplied by the public. That tremendous tonnage is the equivalent of 461 Empire State Buildings - over 1400 carloads of scrap every day of the year.

Right now there is a scrap shortage. It threatens to interfere with steel production. So we appeal to you, as a user of steel and steel products, to do all you can personally to help collect scrap.

Somewhere in your place of business - and even at home - there are things that can be scrapped - worn-out or obsolete machines, pipe, boilers, tools, structural parts, etc., that you'll never use again in their present form. Turn them in through regular channels. Call the nearest dealer and start your scrap on its way to the steel mills - to help America reach its production goal of 105 million tons of new steel in 1951. It is this team-work that will help us win the victory again.

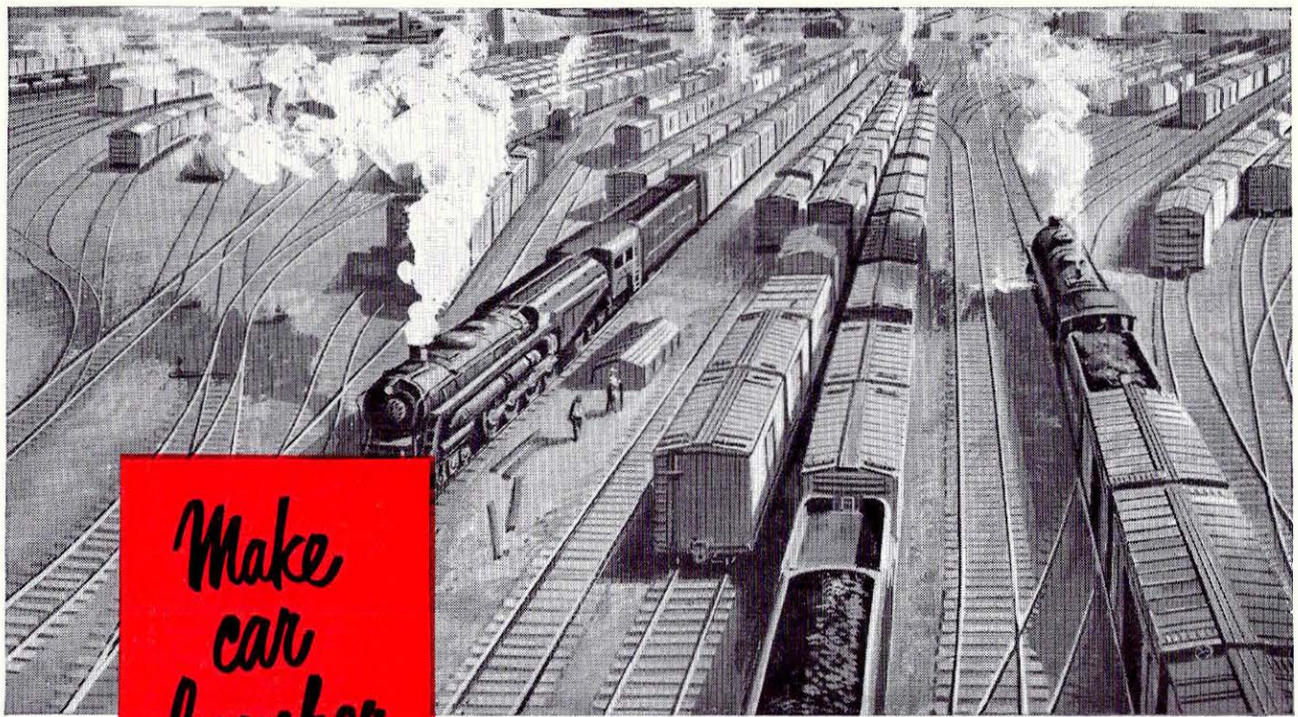
YOUR SCRAP YOUNGSTOWN IS NEEDED

The Youngstown Sheet and Tube Company

General Offices--Youngstown 1, Ohio
Export Offices--500 Fifth Avenue, New York
MANUFACTURERS OF CARBON ALLOY AND YOLOY STEELS

The steel industry is using all its resources to produce more steel, but it needs your help and needs it now. Turn in your scrap, through your regular sources, at the earliest possible moment.

NOW! when maintenance is more important than ever



Make car lumber LAST!

use Penta*-Protected wood

Heavy traffic does not *have* to mean more maintenance for busy equipment. You can cut maintenance by protecting car lumber, and all lumber, with PENTA . . . and give your wood longer, more dependable life.

PENTA protects wood against termites and decay, gives wood greater serviceability. PENTA-PROTECTED WOOD is clean, easy to handle and can be painted. PENTA is economical, too!

Railroad service records *prove* that treated wood lasts three to four times longer than untreated wood. This means that PENTA-PROTECTED WOOD costs you *less per year!*

USE PENTA-PROTECTED WOOD not only for car lumber but also for poles, loading platforms, all wood buildings and other wood construction. Protect your investment in wood. Make it a *sure* thing . . . with PENTA!

INVESTIGATE Penta THE CLEAN WOOD PRESERVATIVE

*PENTA is a popular abbreviation of the name of the chemical, PENTAchlorophenol.

THE DOW CHEMICAL COMPANY
MIDLAND, MICHIGAN

DOW
Penta
chlorophenol

0501
NEW
HAVEN
0501
0511
0501

ALL-PURPOSE MOTIVE POWER

INCREASES REVENUE FOR THE NEW HAVEN

Just one type of locomotive—the Alco-GE 1600 hp road switcher—provides all the motive power for the New Haven's Berkshire line.

Operating from a pool at Danbury, only seven locomotives are necessary to perform all assignments—freight, passenger and switching—day in and day out.

In multiple the units haul heavy freights. Singly they haul local freights, daily passenger trains, and perform all necessary yard switching. On weekends they also haul summer vacation specials and ski trains.

Originally ten locomotives were assigned this branch. But intense utilization, beyond the New Haven's expectations, reduced the number to seven, releasing three for service elsewhere.

The New Haven's experience with these 10 Alco-GE road switchers prompted the purchase of 35 additional units.

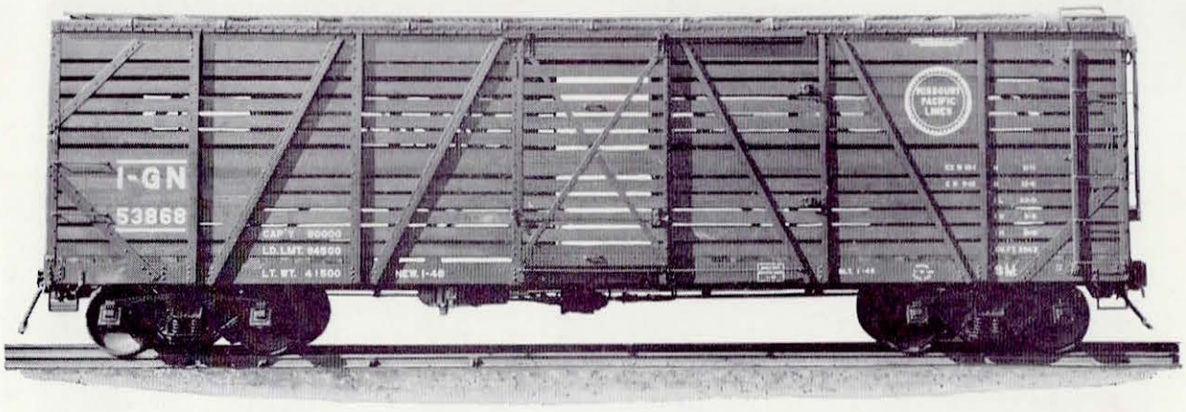
AMERICAN LOCOMOTIVE
and
GENERAL ELECTRIC

113-263

The next hundred years will be easier...

MISSOURI PACIFIC LINES

with KOPPERS-PRESSURE TREATED CAR DECKING!



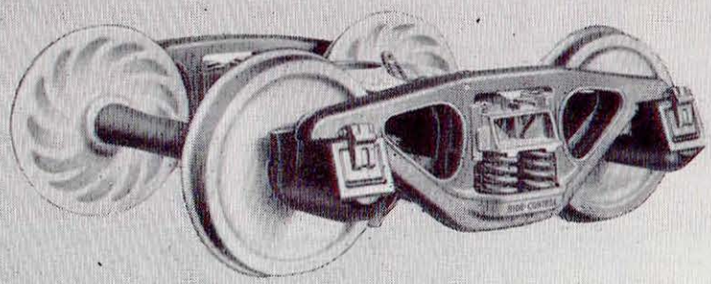
THE Missouri Pacific Railroad has hauled millions of head of cattle since 1851. And it has worn out hundreds of stock cars. We hope the volume of livestock carried on the Missouri Pacific will increase during the next hundred years . . . and we know the wear-and-tear on its stock cars will be less damaging and less costly because Missouri Pacific stock cars are being decked with pressure-treated wood.

Koppers Pressure Treatment more than triples the service life of car decking. The saving on maintenance costs amounts to an annual dividend of more than 60% on the cost of pressure treatment. Increased revenues result from the fact that cars spend more time in service, less time in the repair shop.

We'll gladly make an analysis and a report of potential savings to your company through the use of pressure-treated car lumber. Such service is free. Write, wire or phone Mr. R. H. Bescher, Manager, Technical Department, Orrville, Ohio.

KOPPERS PRESSURE-TREATED WOOD

KOPPERS COMPANY, INC. • Pittsburgh 19, Pa.

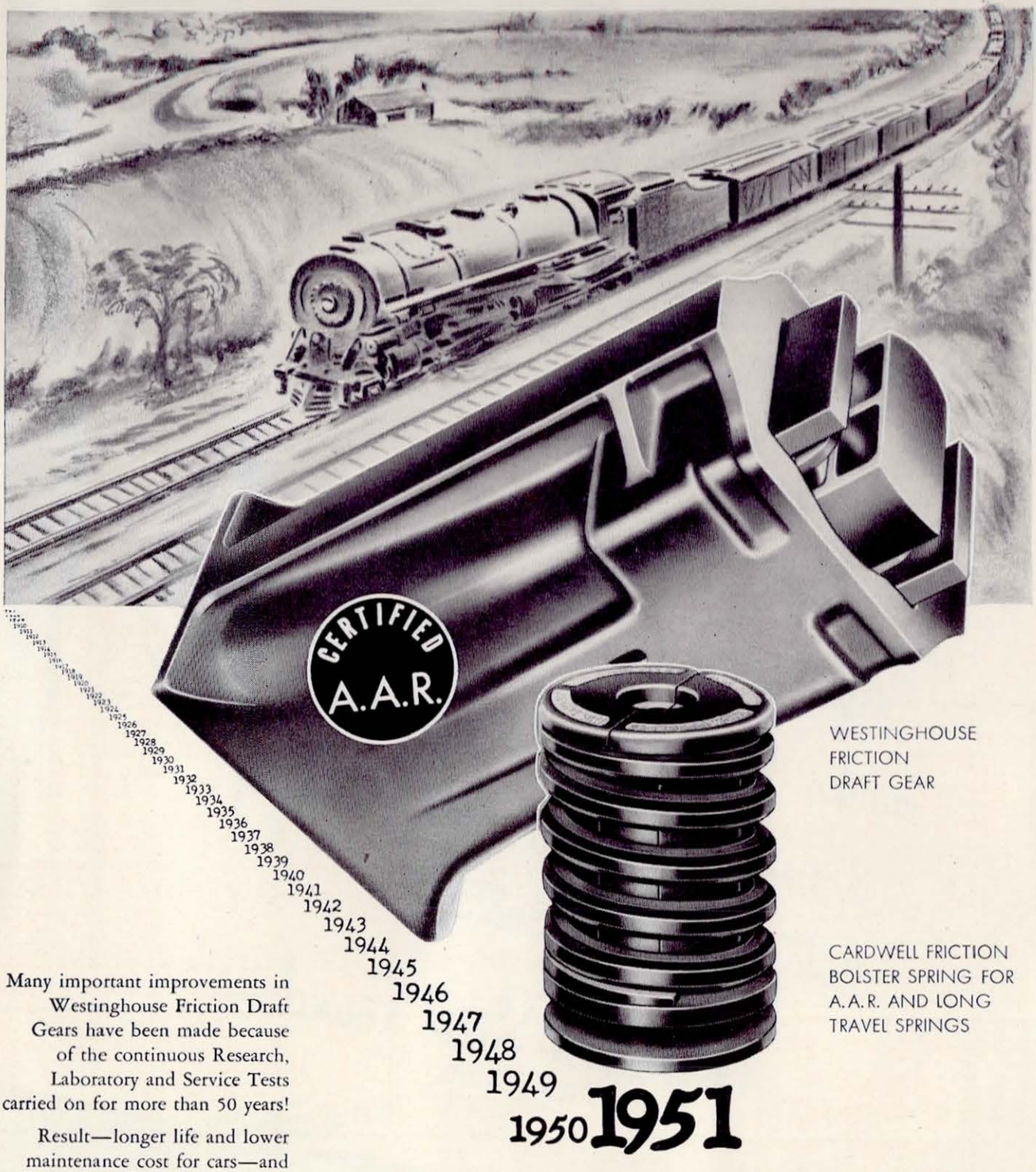


More Users buy more A-S-F Ride-Control Trucks than all other trucks combined... because Ride-Control® is smooth-riding, long-lasting --- cuts operating costs!

American Steel Foundries

Mint Mark of ⬡ Fine Products

Continuous Improvement for over half a century



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CARDWELL FRICTION BOLSTER SPRING FOR A.A.R. AND LONG TRAVEL SPRINGS

Many important improvements in Westinghouse Friction Draft Gears have been made because of the continuous Research, Laboratory and Service Tests carried on for more than 50 years!

Result—longer life and lower maintenance cost for cars—and for Draft Gears too.

More than 98% of the Cars in Freight Carrying Service are A.A.R. Construction, and Over 96% have Friction Draft Gears.

The shock-absorbing capacity of the A.A.R. Friction Draft Gears in service is sufficient to protect the 4% of cars not equipped with Friction Draft Gears.

Cardwell Westinghouse Co., Chicago
Canadian Cardwell Co., Ltd., Montreal

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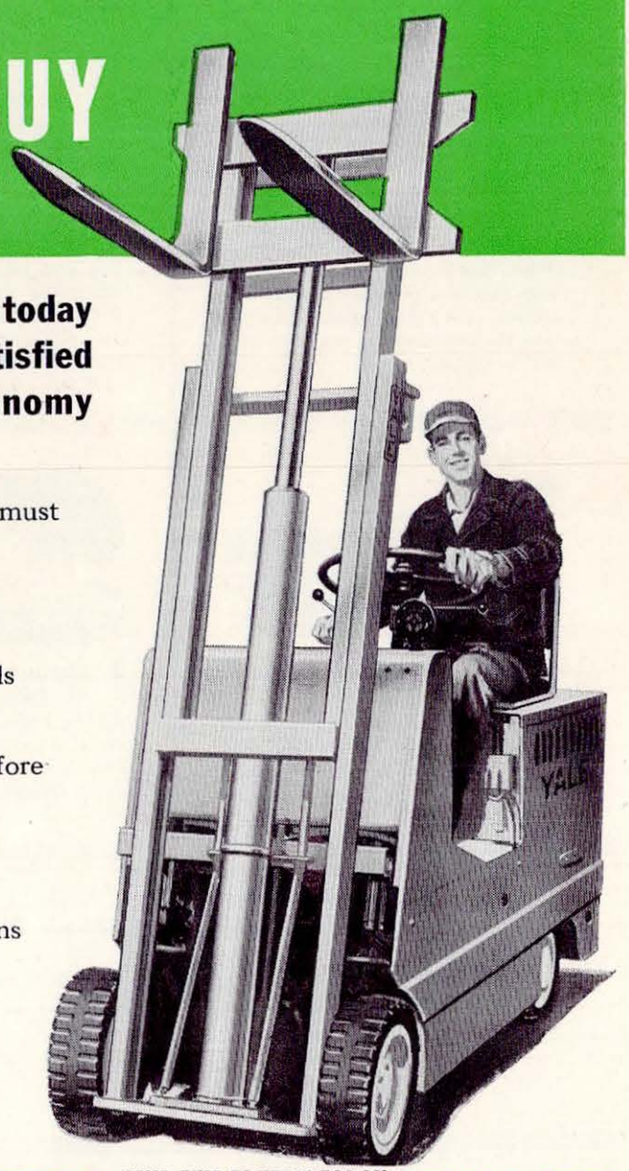
THE BIG 89% TELLS YOU WHY A YALE ELECTRIC TRUCK IS YOUR BEST BUY



89% of the Yale Electric Trucks sold today are bought by previous users...so satisfied with Yale performance and Yale economy that Yale is their choice again.

•Seeing that extraordinary record—you'll say these must be extraordinary trucks. And they are!

They bring to your materials handling problems new shortcuts—new savings in man-hours—new opportunities to answer today's stepped up demands for faster deliveries.

In many businesses, it's only a matter of months before Yale Electric Trucks have paid back the initial investment—and in their long years of service they pay for themselves many times over.

Rugged Yale quality—built into every part—explains the service these trucks give even in the toughest jobs . . . even when working on round-the-clock schedules that would knock out trucks of less durable construction.

Ask for complete details about Yale Electric Trucks—and their industry-wide record of satisfied users.

YALE & TOWNE

The Yale & Towne Manufacturing Co., Philadelphia 15, Pa.

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I am interested in cutting my materials handling costs.

☐ Please have your local representative call on me.
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YALE GAS AND ELECTRIC INDUSTRIAL TRUCKS • YALE *WORKSAVERS* • YALE HAND TRUCKS • YALE HAND AND ELECTRIC HOISTS

Check the facts and you'll see why

AAR SOLID BEARINGS

are best for rolling stock

1. GREATER PROTECTION FOR LADING

With "free-floating" AAR solid bearings, lateral shocks are flexibly controlled — not rigidly opposed. Lading gets the smoothest ride on any standard freight car truck.

2. UNRESTRICTED AS TO SPEED AND LOAD

You can take the heaviest loads — make the fastest schedules. Aside from roadbed and traffic conditions, axle size and strength are the only limitations on speed and load when cars are solid bearing equipped.

3. LOWEST ACCELERATING AND RUNNING RESISTANCE

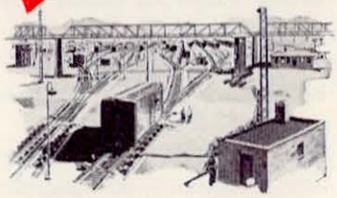
Solid bearings glide on an oil film — like skaters on ice. Identical tests prove they require up to 33% less power to make a run at sub-zero temperatures.

4. LIGHTEST WEIGHT

Solid bearing assemblies average 50 tons less dead weight for each 100 cars in movement — put the maximum tractive effort of locomotives to the business of moving goods.

5. UNEQUALLED PERFORMANCE AT HIGH SPEEDS

All the high-speed overnighters ride on solid bearings — with service records up to 42 million car miles without a heating.



6. INTERCHANGE MADE EASY

Simple, dependable, economical, safe — solid bearings make cars equally at home on any railroad, anywhere, any time.

7. MORE TON MILES PER HOUR AT LOWEST COST

Lowest Bearing Cost

Save 25% on initial *car* cost — four cars for the price of three.

Lowest Fuel Cost

Minimum pounds-per-ton resistance over the whole run — and many tons less dead weight per train.

Lowest Cost for Maintenance

No special equipment, no excessive standby inventories, no skilled labor.

Be sure to get your free copy of "The Facts About AAR Solid Journal Bearings" — 20 full pages of simplified bearing data that's fundamental to train operation. Just write a post card or letter to Magnus Metal Corporation, 111 Broadway, New York 6, N.Y., or 80 E. Jackson Blvd., Chicago 4, Ill.

MAGNUS METAL CORPORATION

Subsidiary of NATIONAL LEAD COMPANY

THE PUBLIC MUST BE SHOWN HOW RATE REGULATION HAS FAILED

Railroad management and investors are discouraged and alarmed by the decision of the Interstate Commerce Commission in Ex Parte 175. There is more alarm than discouragement, and the alarm arises from the fact that the Interstate Commerce Commission, as presently constituted, seems determined to keep the railroads poor; and from the fact that the commission's concept of the profit system is dangerously inadequate.

The commission seems to be fearful lest the railroads become profitable. That fear was exemplified by the commission's action back in 1943, when it suspended the Ex Parte 148 increases some fourteen months after they were effective. Ever since that time the commission, by its decisions and by the exercise of its suspension power, has given every indication that it will not permit the railroads to earn high profits based on high traffic volume.

Rather, it seems constantly to hope that high volume will provide just enough to enable the railroads to keep their heads barely above water. No great economic wisdom is required to know that every business operating under our capitalistic system must earn high profits when business volume is high; otherwise business cannot weather the storms of adversity that are bound to beset us from time to time. Nevertheless, the Interstate Commerce Commission steadfastly refuses to accept this fundamental concept of the profit system.

What Motivates Commission?

What is it that actuates the Interstate Commerce Commission in holding down railroad profits when business is good? Certainly it cannot be the fear that the railroads will squander those profits or pay them out in improvident dividends. The record shows that railroad management has been diligent to use profits to reduce the still heavy indebtedness and to plow back such earnings as are available into the properties. The railroads have consistently improved their efficiency. So, what is the answer to the commission's failure to carry out the declaration of policy in the Interstate Commerce Act?

No doubt many changes are desirable in the Interstate Commerce Act, but the act as it now stands gives the commission sufficiently broad powers to enable the railroad industry to be profitable. Is it necessary that the Congress say to the commission that it shall allow rates and charges sufficient to attract equity capital and to maintain credit? It would seem that under our capitalistic profit system those objectives are so fundamental that a specific directive should not be required. In the field of public utilities, the states and the courts have recognized the necessity for a rate of return sufficient to provide good service, to make improvements, and to maintain credit.

Fearful of Competition

It may be that the Interstate Commerce Commission is too fearful of the effect of rates on the volume of railroad traffic in view of the competition from motor trucks, buses, air lines and waterways. True, the Interstate Commerce Act requires the Interstate Commerce Commission to give consideration to this factor, but certainly when we have been going through a period of almost ten years of high production and volume, and when the railroads are the principal carriers of goods, there would seem to be no reason for the commission to be too much concerned about the effect of rates on volume. Why not let it be managerial responsibility to worry about this phase of the matter?

In the Ex Parte 175 proceeding it was shown that if the railroads were granted the full 15 per cent increase in freight rates asked for, they would by and large

still not be able to earn anywhere near a 6 per cent return, and, with a few individual exceptions, would not be subject to excess profits taxes. So again the question recurs: What actuates the commission in its reasoning?

The Interstate Commerce Commission has a reputation to defend. Throughout a great many years it has been—and probably still is—one of the abler government agencies; but there is enough evidence to warrant a strong suspicion that the long-haired boys in the various government departments who always intervene in these rate cases have scared the Interstate Commerce Commission. What business is it of these government agencies, anyhow, to intervene in a proceeding before the Interstate Commerce Commission? The commission is an agency of the Congress, with the duty to protect the public interest. Why, then, should a lot of government agencies seek to prevent the railroads from getting reasonable earnings, when their credit is already so seriously impaired, and when other industries have all raised their prices ahead of the railroads, and when railroads are already the victims of inflation and not the cause?

Challenge to Management

This situation confronts railroad management with a challenge as great as any it has ever faced. Management has, so far, failed to arouse the public to the dangers inherent in the railroad situation; and it has failed to convince the Interstate Commerce Commission of the means required to operate and maintain the railroads as a dynamic industry. It behooves railroad management in the interest of the public, of the investors in railroad securities, and of railroad employees, to discard its old methods; to adopt new, forceful and dynamic methods that will bring about a reversal in the thinking of the American people, of the Congress, state legislatures, the regulatory bodies, and the users of railroad service. Quite likely the job might best be given to a committee of railroad presidents, lending the prestige of their personal integrity to the movement, who would fortify themselves with the facts and lay this serious problem before the President of the United States, the representatives in Congress, the secretary of commerce and the Interstate Commerce Commission—and then carry the same message to the public in a broad program of popular education. No more important duty or opportunity faces railroad management today.

POOLING OF L.C.L.

Pooling of less-carload traffic, with the twin objectives of improving service to shippers and cutting handling costs, is much in the limelight these days. While the larger eastern l.c.l. carriers—with a bow in the direction of the Shippers Advisory Boards—are taking the first steps in making their own pooling arrangements, shippers in Connecticut's Naugatuck Valley, working in conjunction with the New York, New Haven & Hartford, already have worked out successfully the essentials of their own method of pooling, known as the "Griffin Plan" (see page 52, this issue). No one, apparently, seriously doubts that ultimately the results of pooling will benefit both the railroads and their patrons. Nevertheless, some railroad men are known to oppose the present—and any future—Griffin plan, mainly because it may divert business from their own railroads.

Basically, of course, both the Griffin plan and the pooling plan being discussed by the eastern carriers have the same objectives. Aside from the fact that one pooling arrangement has been put into effect by the shippers, while the railroads themselves will set up the other, there is only one *fundamental* difference between the two plans, i.e., where the present Griffin plan calls for routing via the best (performing) service route between any two given points, the railroads' plan apparently contemplates no such arrangements where supposedly competitive service is provided by two or more carriers, or groups of carriers. Assuming that the shippers are sincere when asking for improved l.c.l. service, in all probability, traffic will eventually gravitate to the best service routes.

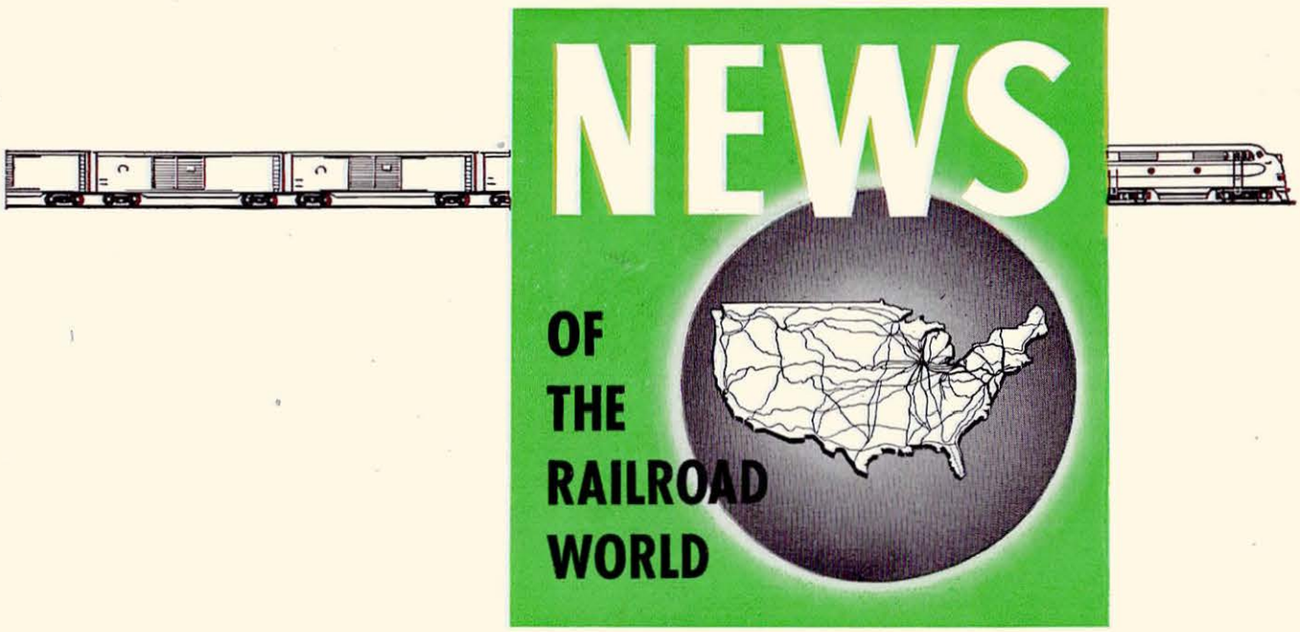
At least as far as the shippers participating in the present Griffin plan are concerned, there is a willingness to split the available tonnage destined to competitive points among carriers whose service is equally good. Any carrier losing business, therefore, as long as the Griffin plan is administered properly, will do so only because it is not equalling the best service available to points served by it. (This is evident, we think, from the number of A.B.C. routes, not generally considered good, service-wise, in the guide put out by the Naugatuck Valley shippers.) Since it is likely that other "Griffin plans" soon will be in effect, probably before anything concrete comes from the efforts of the eastern carriers, it seems obvious that good, dependable service will get some railroads increased l.c.l. business, not all of which will be taken away from other railroads.

One Hour On Our Railroads

One trouble with statistics concerning so great an enterprise as the American railroads is that they are so big they reach astronomical proportions. So, for a change, it's a good idea to break the figures down, and use them to describe what the railroads do in just one, single, sixty-minute hour.

During that hour, more than 1,000 trains leave their starting terminals and an equal number arrive at destinations. In that same hour, the railroads will handle nearly 17,000 express shipments and 1,300,000 pounds of mail. They will receive for shipment 4,200 carloads of freight and deliver 4,200 other carloads. On the financial side—and we're still dealing with just one brief hour—the lines will pay out about $100,000 for federal, state, and local taxes, more than $200,000 for operating supplies, and more than $500,000 in wages.

This goes on 24 hours a day, 365 days a year. It is the measure of the industry's service to the country which supports it. *The other commercial carriers have their place, but, judged by the magnitude of the job each does, the railroads dwarf them as an elephant dwarfs a rabbit. In peace or war, the major transportation of this country is accomplished by the iron horse running on steel rails.—Alexandria (La) TOWN TALK.*



Baxter Heads Tariff Study Group

Charles S. Baxter has been appointed chairman of the Railroads' Tariff Research Group, which the carriers have established to do a full-time job of studying ways and means of simplifying and otherwise improving tariffs. A former assistant director of the Interstate Commerce Commission's Bureau of Traffic, Mr. Baxter has served for the past seven months as information officer of the Defense Transport Administration, and in a staff advisory capacity to D.T.A. Administrator James K. Knudson.

In addition to Chairman Baxter, the research group will have two other members. One of them is George W. Lupton, Jr., of Los Angeles, Calif., an attorney and researcher who has recently been consultant to the United States Air Force at Dayton, Ohio. The third member of the group will be appointed "shortly," according the the railroads' August 29 statement which announced the Baxter and Lupton appointments and said that the group would be "activated" September 1 with headquarters in the Transportation Building, Washington 6, D. C.

This announcement was made by Fred Carpi, traffic vice-president of the Pennsylvania, who is chairman of the railroads' Administrative Committee under the direction of which the research group will operate. Plans for launching the research program had been announced previously by chairmen of the railroad regional traffic associations and by Edward F. Lacey, executive secretary of the National Industrial Traffic League (*Railway Age* of August 6, page 44).

Mr. Lacey's announcement noted that the research idea had been sponsored by the league's comittee on rate construction and tariffs, which "will collaborate with the rail group" and participate in "periodic joint meetings as the occasion requires." John W. Peters, traffic manager of the Delco-Remy Division of General Motors Corporation, is chairman of the league's committee.

The research group "is calling upon everyone interested in tariffs and tariff reform to send in his suggestions," Mr. Carpi's August 29 announcement said.

Independent Activity

"The research project," it added, "is an independent activity of the railroads and the new organization is not affiiliated with the Association of American Railroads. The group will operate under the direction of an administrative committee of 12 railroad traffic executives and with the advice and counsel of a cooperating committee from the National Industrial Traffic League."

Mr. Baxter is 45 years old. He was born in Montgomery, Ala., and educated in the public schools of that city. He began his career in the field of traffic and transportation in 1923, as a clerk in the Louisville & Nashville's general freight office at Montgomery. He was transferred to Louisville, Ky., in 1927, and he left the L. & N. later in that year to enter industrial traffic work.

In the latter capacity, Mr. Baxter served, first, with the W. P. Brown & Sons Lumber Company of Louisville, as traffic manager, and then as freight traffic analyst for the Republic Steel Corporation at Cleveland, Ohio. He was in military service from February 1943, until September 1945, having been assigned to the Traffic Division of the Army Air Forces, Washington, D. C., headquarters, as chief of the Rail and Highway Traffic Branch. Mr. Baxter had attained the rank of major at the time of his discharge from military service.

With I.C.C. Two Years

He returned to his former position with Republic Steel, remaining until November 1946, when he became trafic manager of the Lockheed Aircraft Corporation at Burbank, Calif. Mr Baxter's service as assistant director of the I.C.C.'s Bureau of Traffic began on February 7, 1949, and continued until January 25, 1951, when he became D.T.A.'s information officer.

Mr. Lupton is 50 years old. He was educated at the University of California and Harvard Law School. From 1926 to 1941, he was engaged in the private practice of law and as local attorney for the Atchison, Topeka & Santa Fe at San Francisco, Calif. During the past 10 years he has served as research consultant to Douglas Aircraft Company, the Santa Fe, and the Chicago, Milwaukee, St. Paul & Pacific.

Meanwhile, Mr. Lupton served from January 1946, until April 1948, as operating head of Santa Fe Skyways, a Santa Fe subsidiary, which formerly operated a transcontinental air freight service. He then became a senior associate of the New York firm of C. A. Rheinstrom, Inc., consultants specializing in air transport. He has been consultant to the Air Force at Dayton since last May.

Fast Write-Offs Banned by I. C. C.

Railroad reports to the Interstate Commerce Commission can no longer reflect accelerated amortization of equipment and facilities acquired to handle defense-traffic loads—"unless it can be shown definitely that the facility will have no use in transportation service after the emergency."

A commission notice, dated August 20 and made public August 24, announced this new policy which applies to all carriers subject to commission jurisdiction. A second notice, applying specifically to the railroads, announced commission plans to require a restatement of railroad accounts to eliminate accelerated amortization recorded since December 31, 1949.

Both notices advised interested parties that they might file written presentations with respect to the matter on or before September 27. The general notice read in part as follows:

"The commission, by Division 1, having under consideration the matter of emergency facilities, the cost of which may be amortized over a 60-month period for federal income tax purposes under Section 124(a) of the Internal Revenue Code. . . . finds no justification for charges to carrier operating expenses representing the service loss of any such facility, in excess of those computed at prescribed or accepted depreciation rates, unless it can be shown definitely that the facility will have no use in transportation service after the emergency.

"All carriers subject to accounting regulations prescribed by the commission will be required to conform to this policy, which will be given effect by cancellation of any provisions which are contrary in the accounting regulations now in effect for the different types of carrier. . . ."

Following through on the latter basis in the notice applying to railroads, the commission announced that it had "approved" the cancellation, effective January 1, 1952, of Account 270½, Road—Amortization of defense Projects, and Account 331½, Equipment—Amortization of Defense Projects.

The notice went on to announce the retroactive application of the new policy, saying that the railroads "will be required to reverse charges to accounts 270½ and 331½ applicable to those emergency facilities acquired subsequent to December 31, 1949, and certified under Section 124(a) of the International Revenue Code."

"Upon application," the notice continued, "any steam railroad will be granted authority to provide for accelerated depreciation for any facility that will not be used in transportation service after the present emergency period."

The action taken by the commission was opposed by what has been described as an "overwhelming" majority of the railroad accounting officers who participated in discussions of the matter with members of the commis-

(Continued on page 40)

NEW SERVICES AND PUBLICATIONS OF INTEREST TO SHIPPERS

AKRON, CANTON & YOUNGSTOWN—Industrial development department has just released a 22-page brochure, complete with maps and photographs, on plant site locations in Akron, Ohio, Medina and Plymouth. A six-page section on taxes in Ohio is part of the brochure.

ASSOCIATION OF AMERICAN RAILROADS (Freight Claim Division)—Loss and damage prevention "Bulletin No. 1099," on panel resistance of the 46-oz. (juice) can in relation to beading. Comes out for the deep, wide-beaded can, "which does not increase the cost of the can to the canner," but which is "135 to 150 per cent more panel resistant than the plain body can."

BALTIMORE & OHIO—*Industrial development department has just issued a 105-page book entitled, "High Calcium Limestone in the Areas Served by the Baltimore and Ohio Railroad." (See page 61.)*

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC—*"L.C.L. Merchandise Schedules."*

DELAWARE, LACKAWANNA & WESTERN—Commercial development department has issued an illustrated brochure on 2,000 acres of developed industrial area at Baldwinsville, N. Y., about 11 miles from Syracuse. Contains details on taxes, labor supply, transportation, housing and commercial building available.

ERIE—*Revised freight train schedules, summer season 1951.*

NASHVILLE, CHATTANOOGA & ST. LOUIS—*Industrial division of traffic department has released an illustrated bulletin describing its 225-acre development at Atlanta, Ga., known as the Southland Industrial Center, just four miles from the downtown center of the city, and adjoining the railroad's Hills Park yard. The development is zoned so that warehouse and factory areas are separated.*

NEW YORK CENTRAL—Has made the following changes in l.c.l. car lines since issuing Supplement No. 1 (June 15) to its l.c.l. schedules:

Car lines discontinued:

Black Rock, N. Y., to Syracuse ("Pacemaker");
Cleveland to Barclay street (New York) ("Pacemaker");
E. St. Louis, Ill., to Columbus, Ohio, Toledo, Detroit, 33rd street, New York, and Springfield, Mass.;
Peoria, Ill., to Danville, Ill.;
Van Wert, Ohio, to Bryan, Mich., to Jackson, Mich. (Way car); and to Cincinnati;
Utica, N. Y., to Bay City, Mich., Kalamazoo, Mich., and Burr Oak, Ill. (C. R. I. & P.);
Utica, Mich., to Detroit (Way car);
West Haverstraw, N. Y., to Utica; and
Wellsboro, Pa., to Newberry Jct.

New car lines:

Alsen, N. Y., to Utica (Tri-weekly);
Black Rock, N. Y., to Utica ("Pacemaker");
Wellsboro, Pa., to Syracuse, N. Y.;
Utica, N. Y., to Corning;
Pittsburgh to Washington, D. C. (B. & O.); Hornell, N. Y. (Erie); Binghamton, N. Y. (D. L. & W.) (Tri-weekly); Baltimore. (W.M.); Neville Island (P.C. & Y.); Library (M.R.R.) (Tri-weekly); Manchester (N.Y.) Transfer (L.V.) (Tri-weekly); and St. Louis (C.R.I. & P.).

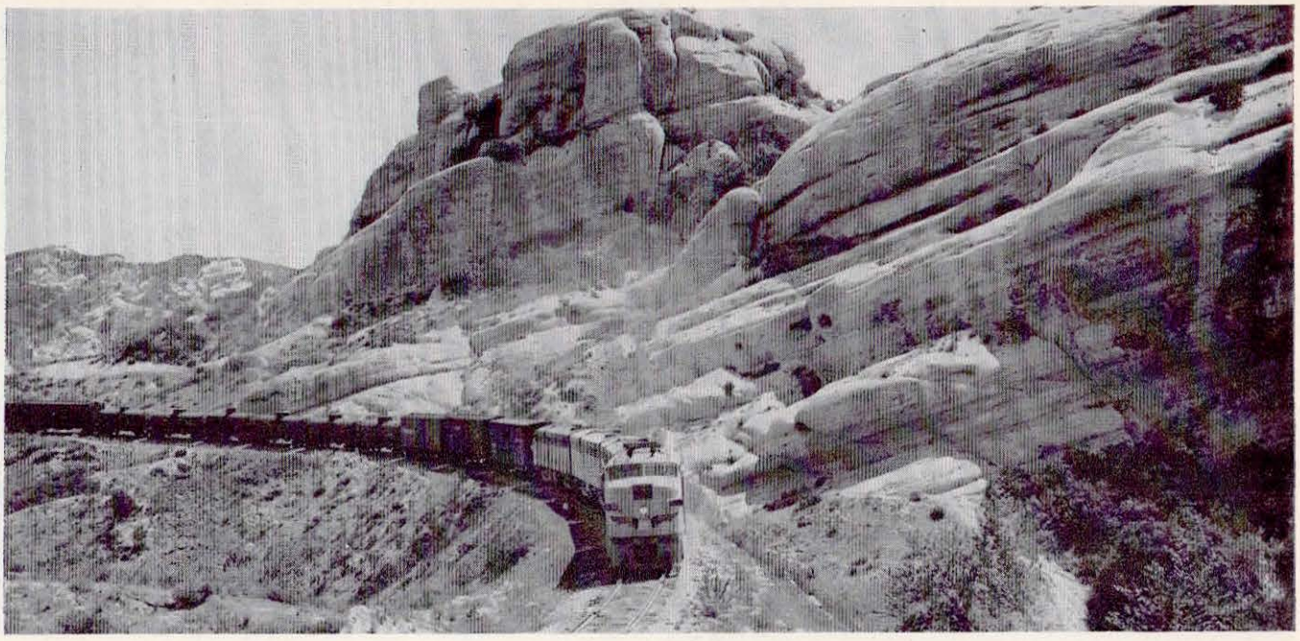
New truck routes:

Van Wert, Ohio, to Bryan, returning to Van Wert, thence south to Coldwater, returning to Van Wert, serving all intermediate stations;
Chicago to Hammond, Ind., Gary, South Bend, Mishawaka and Elkhart;
Syracuse, N. Y., to Camden, Camden to Altmar, Blossvale, McConnellsville, Westdale, and Williamstown;
Syracuse to Newark and Wayneport; and
Syracuse to Lyons and Sodus.

READING—*Industrial development department has released a circular indicating that 17 industrial properties, located in 14 different New Jersey and Pennsylvania towns and cities, are for sale or lease. Square footage of floor space varies from 12,600 to 350,000.*

SEABOARD AIR LINE—"Less Carload Merchandise Freight Service."

VIRGINIAN—"Scheduled L.C.L. Merchandise Cars."



"SHINING RAILS"

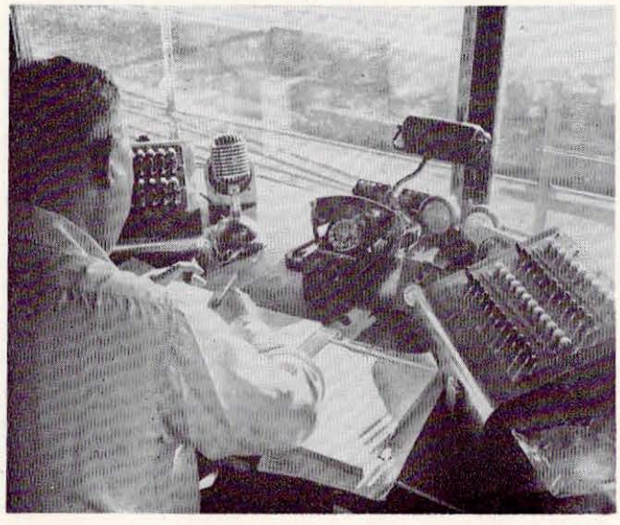
"Shining Rails," a new full-color, 20-minute motion picture, depicting the part electricity plays in modern railroading, and portraying railroad progress during the past 25 years, has been announced by the General Electric Company. The 16-mm. sound production, filmed on locations from California to New Jersey, tells the story of major developments contributing to comfort, speed and safety of passenger travel, and to improved service for freight movement.

Featuring electrification of railroads during the past two decades, the movie describes development of diesel-electric power, starting with the first successful diesel-electric placed on the rails by G.E. in 1924. Also, it tells the progress story of railroad communications, modern materials handling, centralized traffic control, safety equipment, and electrification of passenger cars, dining cars and lounges.

"Shining Rails" was produced for G.E. by Academy Productions, Inc., of Hollywood, under direction of Richard Lyford, and the technical supervision of G.E.'s Transportation division. Designed to show to the public advances in modern railroading practices, the movie will be available for loan at G.E. apparatus sales offices throughout the country, or it may be purchased at cost by organizations desiring prints for permanent use. It is a sequel to "Railroadin'," an Alco-G.E. film produced in 1940 which met with high public acclaim.

As a symbol of the progressiveness of the nation's railroads, the new G.E. gas-turbine electric locomotive, first in the United States, is shown in action in the movie.

The accompanying pictures are all reproduced from the film.



sion's staff. While that action will not end accelerated-amortization accounting for income tax purposes, the railroad officers are fearful that it may make more difficult the obtaining of the required certificates of necessity from the Defense Production Administration. Defense Mobilizer Charles E. Wilson recently ordered a 60-day moratorium on the granting of such certificates *(Railway Age* of August 20, page 60).

Railroad accounting officers have also argued that accelerated amortization should be regarded as an accepted accounting procedure in times of emergency—not as a tax-relief measure. Accelerated-amortization accounting by the railroads was permitted by the I.C.C. during World War II.

Other railroad arguments have contended that the elimination of accelerated amortization will result in "serious" overstatements of railroad assets and earnings. It has also been pointed out that the commission's action will have the effect of increasing taxes paid by railroads in states where levies are based on earnings as stated in reports to the commission.

Dahill Heads Group to Find Substitute Loading Material

E. J. Dahill, chief engineer of the Freight Loading and Container Section of the Association of American Railroads, has been appointed chairman of a National Security Industrial Association committee which is seeking substitutes for materials used in loading and bracing military shipments by rail. Since present loading and bracing materials could become "impossible" to obtain for these purposes, the N.S.I.A. says, "what substitute or returnable materials, non-critical in nature, would be practicable and desirable for this purpose?"

This problem was presented to N.S.I.A. by the Military Traffic Service of the Department of Defense. Accordingly, H. H. Loeffler, chairman of N.S.I.A.'s packaging advisory committee, appointed Mr. Dahill, also a member of the packaging advisory committee, to head up a task committee of eight men to study this problem.

Other members of the committee are: A. P. Kivlin, superintendent, freight loss and damage prevention, New York, New Haven & Hartford; C. R. Gustafson, chief engineer, container and materials handling, American Radiator & Standard Sanitary Corp.; Len Mayrisch, manager, freight protection and station service, Southern Pacific; Neille Rowe, packaging engineer, Capehart-Farnsworth Corporation; C. E. Miller, packaging and loading engineer, United States Steel Company; T. A. Carlson, Forest Products Laboratory; and C. R. Anderson, assistant chief engineer, Freight Loading and Container Section, A. A. R.

N.S.I.A.'s announcement of the committee's formation says the group will welcome "suggestions from all sources as to materials which would serve satisfactorily the purpose as substitutes for scarce materials." Communications should be addressed to Chairman Dahill at 59 East Van Buren street, Chicago 5.

C.N., C.P. File Rate Equalization Plans

The Canadian National and the Canadian Pacific have filed with the Canadian Board of Transport Commissioners a voluminous study on freight-rate equalizations across Canada. The study was made by the railways on instructions from the board as part of its general freight-rate inquiry. This investigation, aimed at general rate equalization, has been in progress more than three years. Public hearings in it are due to start September 10.

In their study, the railways outlined two alternate plans of rate equalization that might be put into effect. They indicated, however, that they do not subscribe to either plan and are submitting them only for consideration by the board. The plans are:

(1) A rate revision scheme based on recommendations of the Royal Commission on Transportation and legislation introduced in Parliament this summer, which would equalize rates right acress the country, apart from certain specific exceptions; and

(2) A modification of that plan, to preserve certain existing rate relationships on traffic moving between eastern and western Canada.

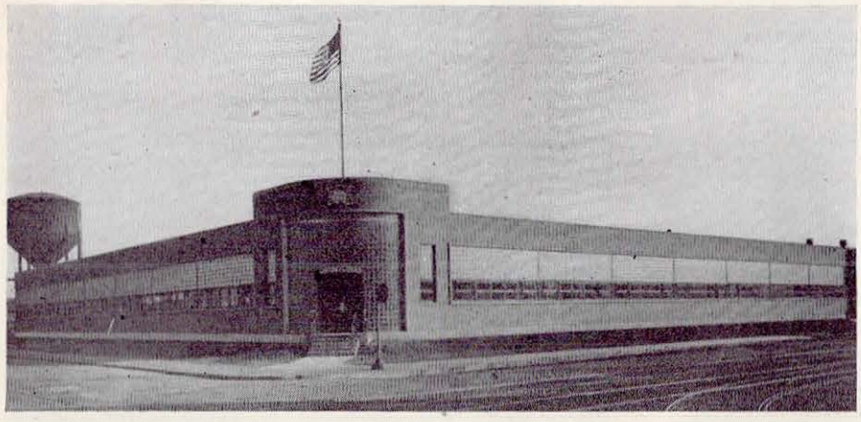
"The railways are of the opinion that the second alternative would cause less disturbance to the rate relationships of the competing shippers," they said.

Basis of plan No. 1 is a highly technical revision of class rates, while maintaining present statutory preferences, including the low "Crow's Nest Pass" rates in the west. Generally, the effect would be that a commodity moving the same distance in any part of Canada would always pay the same amount in freight charges.

In presenting their modified plan, the railways said it might be found in the public interest to continue an existing system of arbitrary charges and rate groupings that have the effect of giving competing shippers within the same general areas the same charges on goods moving between east and west.

The railways emphasized that neither of the outlined plans could be anything more than the basis for a new rate structure. Other rates would have to be changed to conform to the pattern of whatever new setup was decided on for basic class rates. That would take at least six months.

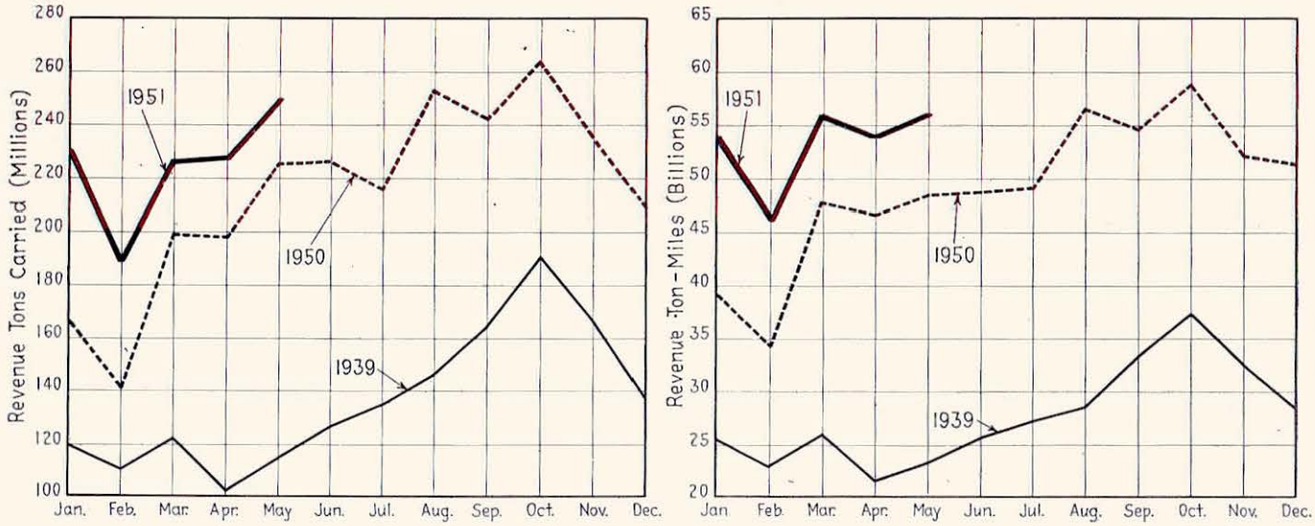
The railways warned, too, of a possible threat to revenues of the C.P. from any equalization plan which reduced rate levels in the west and increased them in the east. "The level of any equalized scale of rates," they said, "must be designed to continue with as little change as possible the C.P.'s existing revenue position. . . If the level fails to do so. . .the result may be to require a readjustment of the level in a further revenue (rate increase) case."



"NEARLY PAID FOR ITSELF IN SIX YEARS"—The Rock Island's modern research laboratory, built on Chicago's south side six years ago at a cost of $350,000, has been saving the road $50,000 annually through testing all materials and equipment purchased. At this rate the lab will have paid for itself in cost within another year. Built primarily to promote greater safety and to guide the Rock Island in its purchases, the lab has also proved helpful to a number of suppliers whose products have been subject to tests. Present research is centering around paints and their "weather-ability" for protection of bridges, buildings, switch stands, signs, etc. Recent topics of research include diesel locomotive oil filters, water softeners, light bulbs and steel rail

Freight Car Loadings

Loadings of revenue freight in the week ended August 25 totaled 838,587 cars, the Association of American Railroads announced on August 30. This was an increase of 9,189 cars, or 1.1



REVENUE TONS AND REVENUE TON-MILES—1951 compared with 1939 and 1950

per cent, compared with the previous week; a decrease of 78 cars, or .01 per cent, compared with the corresponding week last year; and an increase of 91,376 cars, or 12.2 per cent, compared with the equivalent 1949 week.

Loadings of revenue freight for the week ended August 18 totaled 829,398 cars; the summary for that week, as compiled by the Car Service Division, A.A.R., follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, August 18

District	1951	1950	1949
Eastern	137,562	148,657	127,570
Allegheny	171,288	171,421	140,586
Pocahontas	64,390	64,329	45,925
Southern	124,862	131,445	108,565
Northwestern	143,331	143,029	132,960
Central Western	125,070	129,863	117,735
Southwestern	62,875	62,496	57,874
Total Western Districts	331,296	335,388	308,569
Total All Roads	829,398	851,240	731,215
Commodities:			
Grain and grain Products	53,144	52,594	50,670
Livestock	9,285	7,945	10,662
Coal	147,426	157,428	113,434
Coke	16,368	15,056	9,560
Forest products	49,871	50,784	40,498
Ore	92,975	81,561	69,241
Merchandise l.c.l.	74,992	89,056	91,663
Miscellaneous	385,337	396,816	345,487
August 18	829,398	851,240	731,215
August 11	809,354	847,708	728,029
August 4	813,366	837,430	716,863
July 28	819,875	845,011	724,044
July 21	804,570	830,076	718,516
Cumulative total 33 weeks	25,361,667	23,439,531	23,675,253

In Canada.—Car loadings for the week ended August 18 totaled 82,953 cars, compared with 76,217 cars for the previous week and 83,817 cars for the corresponding week last year, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
August 18, 1951	82,953	32,744
August 19, 1950	83,817	33,492
Cumulative totals for Canada:		
August 18, 1951	2,611,358	1,149,900
August 19, 1950	2,422,533	1,026,209

Switch Manufacturers Want "Tailored" Price Regulation

The Office of Price Stabilization's Frog, Switch and Crossing Manufacturers Advisory Committee has recommended that a "tailored" pricing regulation be drafted for the industry. This was revealed in an O.P.S. press release which reported on an August 24 meeting of the committee with O.P.S. officials.

Products produced by the industry are now covered by Ceiling Price Regulation 30 (Machinery). As a result of the committee's recommendation, a subcommittee has been appointed to consider the "tailoring" proposal, and to meet with O.P.S. officials September 11 (tentative date).

Waybill Study

Another waybill study has been issued by the Bureau of Transport Economics and statistics of the Interstate Commerce Commission. It is statement No. 5133, Mileage Block Distribution of Traffic and Revenue by Commodity Class, Territorial Movement and Type Rate, Manufacturers and Miscellaneous, part II—All Terminations in 1950.

I.C.C. Approves Bulwinkle Pact of Illinois Railroads

Division 2 of the Interstate Commerce Commission has approved conditionally the rate-procedures agreement filed under section 5a of the Interstate Commerce Act by railroads which are members of the Illinois Freight Association. The case was docketed as Section 5a Application No. 21, and the Department of Justice was in its usual role of unsuccessful protestant.

Conditions imposed by the commission will require that notices of actions with respect to classification matters (as well as those with respect to rates) be published "in a recognized traffic journal of national circulation"; and that there be included in the agreement provisions stipulating that notice of intention to permit the expiration of rates bearing expiration dates (which have been in effect for 15 months or longer) shall be placed on the public dockets of the committees.

Also, that there be eliminated from the agreement provisions which accord to committee chairman the right to refer, to the Traffic Executive Committee, actions or determinations taken by lower ranking committees; and that voting provisions be modified to provide that determinations made by a majority (instead of three-fourths) of the voting members present at meetings of any committee shall be deemed to be the individual determination of each member of such committee.

The latter provisions would not apply to actions relating to switching in the Chicago district and matters respecting sand, gravel and crushed stone.

Entry of an order implementing the commission's approval action was withheld, pending advice that the applicant roads assent to the conditions and have modified the agreement.

MORE NEWS ON PAGE 70

Additional general news appears on page 70 followed by regular news departments, which begin on the following pages:

Equipment & Supplies **80**
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Supply Trade **86**
Construction **88**
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Railway Officers **90**

Commissioner Alldredge Says

Common Sense Supports Law's Call for Simplified Tariffs

Specially written for *Railway Age*
By J. HADEN ALLDREDGE
Member, Interstate Commerce Commission

The law requires that rates and charges of common carriers shall be plainly published in the form of tariffs so that the users of the services may know what they are supposed to pay and the conditions under which the services are to be rendered. The language of the statute in this respect is simple, its meaning clear, and its purpose definite and certain. Aside from the demands of the law, however, common sense and the enlightened self-interests of both the carriers and their patrons strongly support the same objective.

Controversies Costly

On the part of the carriers, the maintenance of good public relations calls for the avoidance of as many controversies as possible with respect to the prices to be paid for transportation services. Differences of opinion over this subject do not usually stop at the mere engendering of bad feelings; they give rise to expense—sometimes very substantial expense, in the aggregate—in the adjustment of claims which not infrequently involve litigation, and in extra costs of other kinds. Patrons, too, are not only annoyed but are required to bear unnecessary expense on their own account in the protection of their interests. The government itself cannot escape an extra burden of expense in adjusting disputes and arbitrating controversies that flow from this source.

Simplification Not Easy

The objective of plain and simple tariff publication is not entirely easy of attainment so far as freight tariffs are concerned. The country is broad and expansive; the transportation network is extensive, and commerce is constantly growing in volume, in the number of commodities entering into the channels of trade, and in the radii of the distribution of commodities. Competition for business is, and always has been, keen and there are various currents and cross-currents in the flow of traffic. To provide a system of rates and charges to operate in such an environment is always fraught with difficulties and the necessity of making intricate adjustments. It is the function of tariffs to translate all the complexities inherent in a rate structure into readable and understandable terms—in other words, to catalogue the system of prices for transportation services. In recent years emergency rate increases have added numerous complications to the bibliography of freight tariffs. The result has been to create and point up an acute problem in this field.

Carriers, shippers, and the staff of the Interstate Commerce Commission have come to realize that special efforts will be necessary to extricate the tariff-publishing process from the very undesirable situation into which is has drifted by force of circumstances. Plans are being perfected to bring to bear on this problem the combined talents of specialists, with considerable promise of success. The Bureau of Traffic of the commission some months ago brought to the attention of the carriers the unsatisfactory condition of freight tariffs generally. Controversies over tariff interpretations had been increasing for some years. They had naturally focused attention on many of the imperfections which exist in tariff publications.

The "Major Difficulties"

The major difficulties may be summarized as follows:

(1) Excessive number of tariff publications.

(2) Over-supplementation of basic tariffs.

(3) Inaccurate, incomplete and conflicting descriptions of commodities or articles of freight.

(4) Lack of definiteness and certainty in the commercial processing permitted under transit tariffs.

(5) Indefiniteness in routing rules of line-haul tariffs.

(6) Lack of clarity and certainty in the scope and purpose of terminal tariffs.

(7) Lack of standardization in the general make-up and format of tariffs.

Illustrations of the deficiences in all these different categories would extend this discussion beyond reasonable limits. Examples of simple descriptive terms which have been creating difficulty for many years, when not completely or accurately defined, are to be found in such tariff nomenclature as "parts," "finished," "unfinished," "chemicals," "machinery," "electrical appliances," and "batts."

Since the inception of World War II there have been many newcomers to the various classes of traffic—such as articles of food, plastics, chemical and metallurgical products, and synthetic fabrics—that have not been completely defined or differentiated. The same is true of building-construction and paving materials. In the opera-

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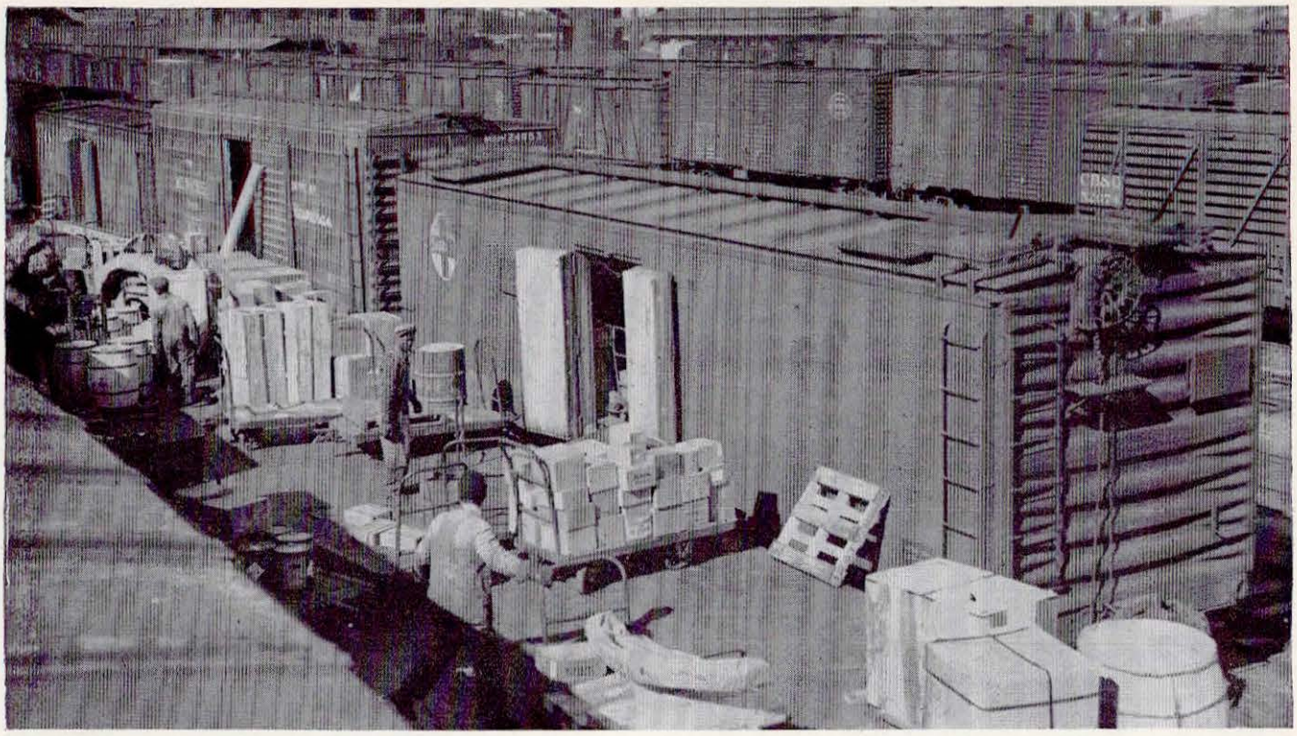
An I.C.C. commissioner since 1939, J. Haden Alldredge's previous experience included 12 years of industrial traffic management, 11 years as a member of the Alabama Public Service Commission's staff, and five years with the Tennessee Valley Authority, where he served in turn as transportation economist and director of the Commerce Department. Rate and tariff matters have continued among Mr. Alldredge's special interests since he became a member of the I.C.C.



tion of transit tariffs it is frequently important to specify the commercial or manufacturing processes to which the products may be subjected at the transit points, and controversies arise under the existing state of tariffs of this type.

The Railroad Research Program

It seemed necessary for the carriers to set up a special research organization to study all of these problems and to attempt to work out solutions by intense concentration on the subject before any substantial improvement could be expected in the form and substance of freight tariffs. The National Industrial Traffic League has insisted upon this approach for some time. So has the Bureau of Traffic of the commission. The rail carriers have agreed and have recently set up such a group, supported by a substantial budget. The chairman of this group, Charles S. Baxter, has furnished the writer with an outline of his project, with permission to append it to this discussion. The letter follows:

You told Mr. Fred Carpi that you would prepare an article for a periodical on the subject of tariff simplification and asked him to supply you with some background information on the approach recently decided upon by the railroads for attacking the problem of complex tariffs. He has requested me to work it up for you.

The sorry state and generally complex nature of railroad freight tariffs has long been a burning issue with the shippers of the country. The situation has grown worse with the effectuation of the several general increases and the interim No. 28300 adjustment, and shippers, through the N.I.T. League, have been more vigorously demanding relief and improvement. Clerk-time per rate has increased fourfold, the shippers declare.

For some time the League Rate Construction and Tariffs Committee agitated the subject with the railroads' A.A.R. Tariff Committee and charged that the failure to secure relief stemmed from the fact that the A.A.R. Tarriff Committee membership was made up of railroad traffic men and tariff publishing agents who are already overburdened with their regular pursuits and do not have the time to give tariff reform the undivided study and attention necessary to satisfactory results.

The league committee then arranged a series of conferences with leading railroad traffic executives and out of these shipper-carrier meetings emerged the decision to set up an organization to devote all of its time to research in the freight tariff field. (Your letter to the three chairmen had much to do with bringing these discussions to the point of decision.)

The organization—named the "Railroads' Tariff Research Group"—will be composed of a chairman and two members and a small stenographic force. It will be established and open for business on September 1, 1951. While it will be domiciled in the Transportation Building in Washington, it will not be affiliated with the Association of American Railroads.

The group will be financed 100 per cent by the Class I railroads of the United States, which have authorized for this work an annual budget of $100,000. The work of the group will be supervised by an Administrative Committee of railroad executives—three chief traffic officers from each of the three major territories plus the three territorial chairmen—and closely observed by a cooperating committee from the N.I.T. League. The shipper-carrier partnership theme will be reflected in all the research group's activities and programs.

The group and its two guiding committees recognize the great interest and responsibility of the commission in all phases of this subject. It will be in frequent touch with you and officials of the Bureau of Traffic. At the luncheon meeting on August 1 all of us were much pleased to have your offer to serve as the "door" through which the commission will be kept informed of our activity and entertain our proposals for changes.

The individual group members will approach the problem without inhibitions, recognizing that some new concepts—perhaps some revolutionary ones—are necessary. The public is being invited to submit suggestions and all received will be carefully analyzed.

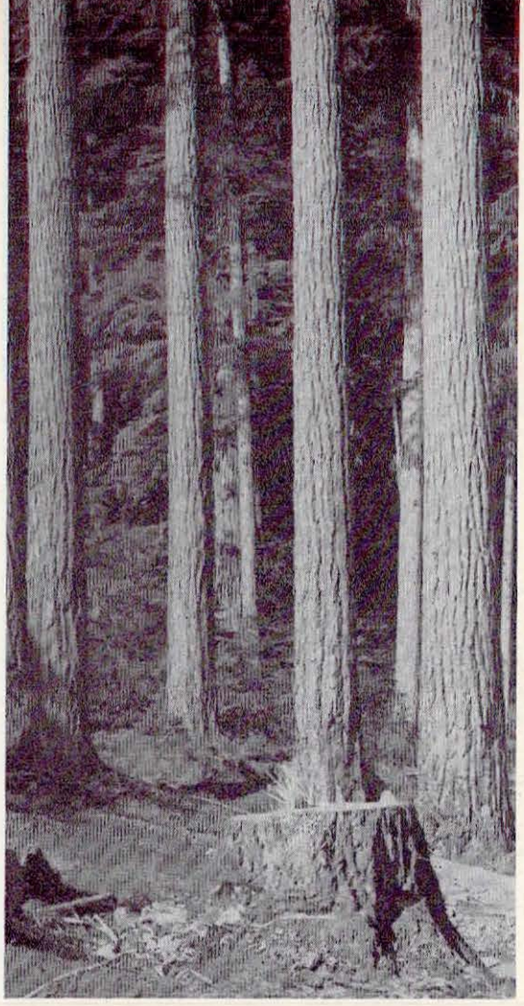
Timber, as well as finished lumber and forest products, represents an important source of traffic and revenues to the western lines of the Milwaukee. This log train, pictured near Kapowsin, Wash., with Mt. Rainier in the background, is taking logs from the Douglas fir country in the Winston Creek area

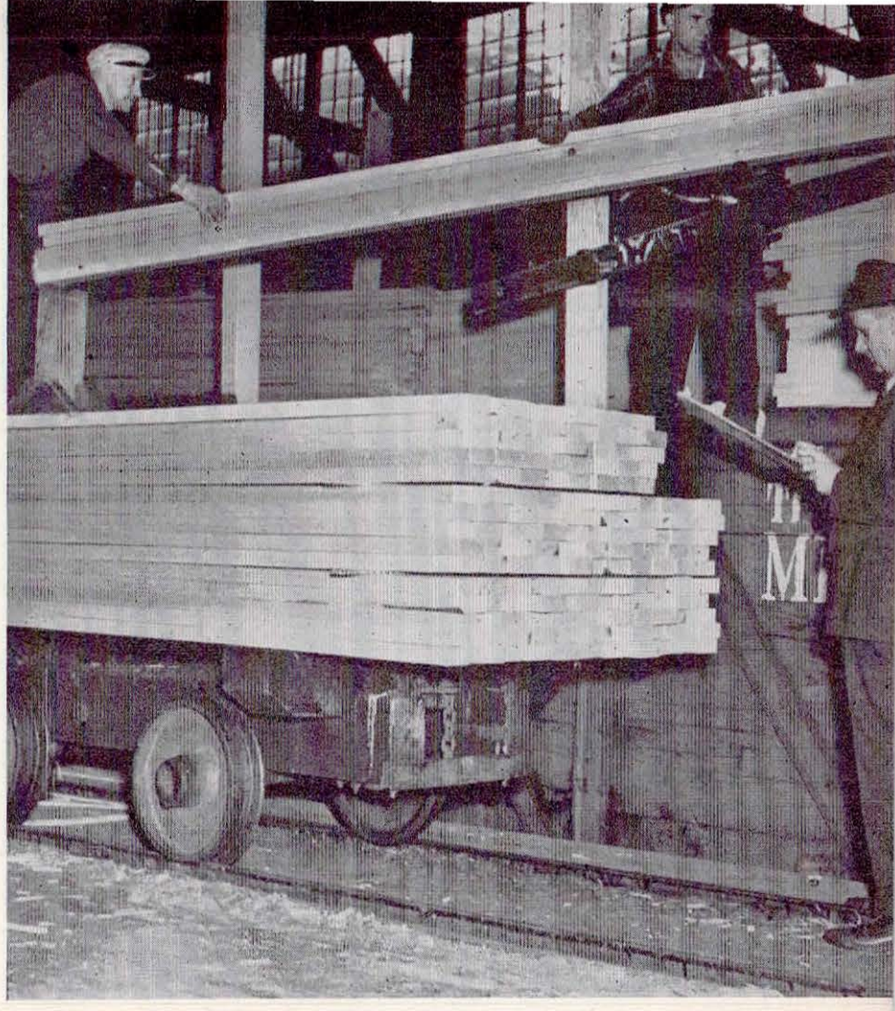
The Milwaukee Plants a Crop Of Future Traffic

The retreating stand of mature timber in the Pacific Northwest has been a matter of prime concern to the Chicago, Milwaukee, St. Paul & Pacific because of its potential effect on important timber and forest products traffic. It has become increasingly difficult for sawmills, wood plants, and other forest products industries to obtain adequate timber for their needs. In order to insure itself against loss of traffic in lumber and related products, the Milwaukee has—with the establishment of its tree farm project—embarked on what is believed to be one of the earliest and largest reforestation projects undertaken by any railroad.

The road is fortunate in owning some 200,000 acres of forest land, situated in Idaho and Washington, some of which is in the very best areas for the growth of Douglas fir—the monarch of commercial timber. The ownership of this land dates back to 1905 when the Milwaukee Land Company, a wholly owned subsidiary organized for the purpose of buying land and subdividing it into lots for town sites along the lines of the railroad—which was then stretching its rails westward from Mobridge, S. D.—purchased timber lands in Montana, Idaho and Washington to encourage the establishment of wood-using industries along its lines in order to generate long-haul traffic to eastern points.

For many years, the policy of the company was to sell this land and timber as rapidly as industry could absorb it. For the past ten years, however, the Milwaukee





Left—The beginning of a harvest of fine old-growth Douglas fir. These trees make ideal timber because of their tall, clean trunks. Douglas fir seedlings do not grow well in the shade of the mature trees, so it is better forestry practice to log the land clear, then seed it for a new crop. The cut logs are taken to rail heads on log trucks. Right—Receding timber stands have placed a "squeeze" on users of timber and forest products as competition for the remaining stands increases. To assure industries along its line—and producers of important traffic—supplies of timber in the years to come, the Milwaukee is following approved forestry practices in planting logged-off land with young trees

Land Company—in common with other large timber-holding interests—has retained ownership of its lands. Some of this Milwaukee-owned land contains immensely valuable stands of mature Douglas fir ranging in age from 80 years to 500. The remaining land has been "logged off"—meaning that all the valuable timber has been cut. And once "logged off," the land was allowed to go "back to nature."

There was Little Foresight

On some of the "old logging works" in the Pacific Northwest the Douglas firs seeded themselves and second growth trees from 10 to 50 years old now cover the land. However, this is not true in all cases because many of the "old works" either have grown up to hardwood species which are valueless as timber, have not grown anything at all except small brush, or have been swept by repeated fires so that the land is still black and bare. This condition—which, until comparatively recent times, was common on much timber land—was the result of indifference and lack of foresight. Few logging operators or timber owners had the foresight to make specific provision for reforestation. And in most places, fire protection on cut-over land had been given only slight attention. By and large, the only practicing forester was Mother Nature, and as often as not she wasn't given half a chance.

The unremitting efforts of far-seeing members of the timber industry—through their tree farm movement—and of the various state forestry departments and the U. S. Forest Service have effected a change in this trend. Although everything forestrywise is not yet shipshape, there has been a marked change in the care which is being given good forest land.

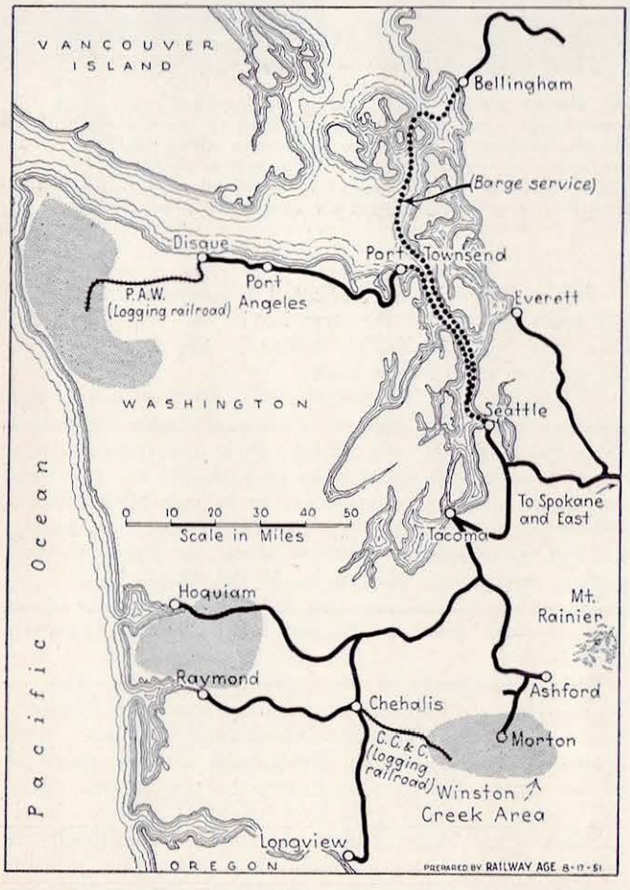
In keeping with this new outlook, and because of the steadily tightening "squeeze" affecting those industries along its lines which do not own their own timber lands, the Milwaukee has undertaken an extensive reforestation and land management program on its own timber lands for the purpose of providing a constant source of supply for the wood-using industries along its lines. An important byproduct, of course, is the steady source of traffic which this timber—and the finished products made from it—will provide for the Milwaukee in years to come.

Scattered throughout the western part of the state of Washington are limited natural areas known to foresters as "Site I" for Douglas fir—meaning the very best ground and location for the growth of this monarch of the forests. These trees live to be 400 to 600 years old, and occasionally grow to a height of 300 feet. They produce good clear lumber, ideal for a multitude of industrial and constructional uses. For this reason, Douglas fir is exceedingly valuable timber—a 100-year old stand carries a value of as much as $1,000 an acre, uncut! On the basis of 100 years' growth, this represents an increase in value at the rate of $10 per acre per year.

One of the elite "Site I" locations for the growth of Douglas fir is in the Winston Creek area of Lewis County, Washington—about 50 air-miles south of Tacoma. Surrounding the "Site I" locality is a large area

of "Site II" land, which is better than average forest land for the growth of Douglas fir. On Winston Creek the Milwaukee Land Company owns 10,000 acres of land—and adjacent to it, the Long-Bell Lumber Company has large holdings, some of which have been "logged-off," and some of which still have standing timber. This valuable land, once logged, obviously should not be allowed to remain unproductive for long. It is here that the Milwaukee has established its tree farm.

The Milwaukee Land Company and the Long-Bell Lumber Company—which have been doing business together for years—accordingly decided to undertake a cooperative reforestation project on 960 acres of adjacent holdings, the results of which will point toward future projects. Although a small percentage of vigorous young seedling trees had established themselves on the logged areas by natural seeding, the density of growth was below that desired. The ground was in good condition for seeding. Tree seed for the project was purchased from the seed plant of the South Olympic Tree Farm Company—a forest management organization protecting thousands of acres of young forests on the south end of the Olympic Peninsula, including some scattered Milwaukee Land Company holdings. A small portion of western red cedar and western hemlock was added to the Douglas fir seed to insure timber growth on areas not suitable for Douglas fir.



The shaded areas on this map show the general locations where the Milwaukee's land holdings in the state of Washington are concentrated, and how the road's lines reach important timber areas in the state. The two holdings on the coast do not present much of a reforestation problem because nature—aided and abetted by heavy fog and cloudy days—provides excellent growing conditions for hemlock. The Winston Creek area is at the lower right. The railroad also has two land-holding areas in Idaho

The Milwaukee is one member of a regionwide committee actively engaged in experimenting with and practical development of direct seeding. Other members are the Oregon State Board of Forestry—the organization which pioneered this work—the Crown-Zellerbach Corporation, Weyerhaeuser Timber Company, the U. S. Fish & Wildlife Service, and the U. S. Forest Service. In planning what is believed to be the first aerial seeding of forest land ever to be undertaken by any railroad in the nation, the Milwaukee benefitted from the combined experiences of the members of this committee.

The actual seeding took place on a quiet clear day last November when the seed was distributed over the ground by a helicopter moving at a ground speed of 45 m.p.h., at an average elevation of 200 feet over the ground. Milwaukee timber men with large yellow flags paced the terrain at right angles to the line of flight, and guided the helicopter pilot over parallel swaths. The area was cross-seeded, with the pilot first seeding on east-west swaths, and then on north-south swaths. In order to check the seed distribution, two other Milwaukee men moved 13 ft. square muslin sheets to various established positions, and counted the seeds which fell on the sheets. In addition, these unseeded plots are now being used as check points for comparison with nearby seeded plots.

The seeded areas will be watched carefully during the next few years, both to determine the success of this seeding project, and to protect the crop from possible damage. As the trees grow larger, they will be carefully thinned, taking out the weaker and leaving the larger stronger trees for growth to maturity. Fire trails and roads have been established, and the lands are being regularly patrolled and watched during forest-fire seasons to prevent the new crop from being destroyed by fire, the most ruthless enemy of the forests.

Long-Range Program

Reforestation is a long-range program—with the eventual benefits sometimes difficult to see in the press of current events. Nonetheless the Milwaukee, through its subsidiary land company, has established a policy of maintaining its present holdings and administering the timber harvest in such a way as to keep the lands continuously productive.

In addition to broadcast aerial seeding, for the past seven years the company has been leaving patches of timber on its Washington lands for use as "seed areas." These patches range in size from 2 to as high as 30 acres. In all cases they are located at higher elevations so that their seed will spread over as much of the surrounding area as possible. There is visible evidence of the success of this system in Winston Creek lands that were logged as long ago as 1944.

In Idaho, rather than leave patches of timber standing for "seed areas," scattered trees are left. Idaho soil seems to germinate conifer seedlings more rapidly, so this scatter system seems to be more effective.

The Milwaukee Land Company was one of the pioneers in establishing the present fire protection organizations in Washington and Idaho. These organizations, in addition to handling fire problems, also take a leading role in the control of insects and tree diseases.

The land is now in the care of Mother Nature, and if the elements at her command are benevolent, the Milwaukee land will soon be green with a timber crop that eventually will do its part to sustain the economy of the West, to support industries dependent on a regular supply of timber, and to provide long-haul freight for the railroad.

Rock Island train No. 91 heading onto the cutoff line from the Union Pacific main track at Sandown, Colo.

How Rock Island Cutoff Speeds Transcontinental Traffic

New line at Denver avoids city congestion and speeds interchange of freight with the D. & R. G. W.

On February 1, the Chicago, Rock Island & Pacific placed in service a new cutoff route through Denver, Colo. This important improvement, built at a cost of more than $2 million, is designed to place the so-called Denver Gateway route of the Rock Island and Denver & Rio Grande Western in a more favorable competitive position with other transcontinental routes with the hope of materially increasing its share of the heavy volume of traffic moving east and west, principally from and to the Pacific Coast and Intermountain territory.

Transcontinental traffic over the Denver Gateway route is interchanged between the Rock Island and the D. & R. G. W. at Denver. This interchange traffic was formerly handled at Burnham yard by the D. & R. G. W., (see diagram) but it is now interchanged direct with the D. & R. G. W. at its new North yard* by means of the new cutoff line. This line extends from Sandown Junction, a point east of Denver on the Union Pacific (used

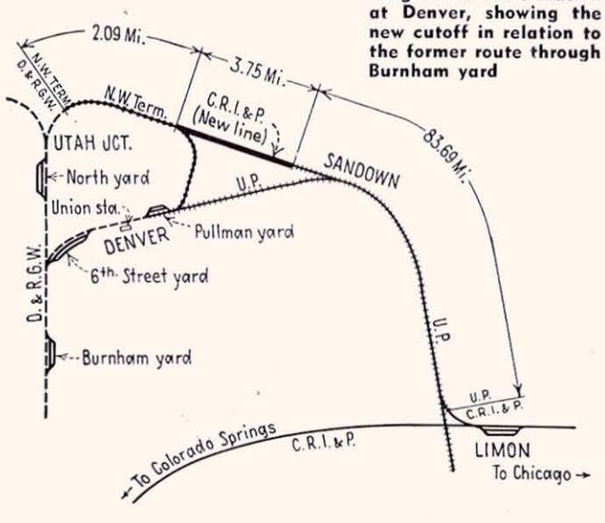


Diagram of the situation at Denver, showing the new cutoff in relation to the former route through Burnham yard

*See *Railway Age* of October 21, 1950, for a detailed description of this yard.

Conductor in caboose uses walkie-talkie set normally carried in box on end of seat

In locomotive cab, the loudspeaker is above window, and microphone is within easy reach of the engineman

Radio Expedites Freight On the Green Bay & Western

Communication between the head-end and caboose on fast through freights, prevents delays on highly competitive route

The Green Bay & Western has installed two-way voice radio equipment on its freight trains operated on 214 miles of single-track main line between Green Bay, Wis., and Winona, Minn. This radio equipment is in service on five diesel road locomotives and six road-switcher diesel locomotives, as well as on the cabooses. On the locomotives, the radio equipment is rated at 10 watts, and is installed permanently. Portable walkie-talkie radio sets, rated at ½ watt, are used on the cabooses, and these same sets can be carried by the conductors or trainmen when out flagging or when walking along the train when stopped for inspection. Two of these portable radio sets are assigned to each caboose in road service.

The Kewaunee, Green Bay & Western, a subsidiary of the G. B. & W., extends from Green Bay eastward for 36 miles to Kewaunee, a port on the west shore of Lake Michigan. The Ann Arbor and the Chesapeake & Ohio operate scheduled car ferry service across Lake Michigan, connecting with their lines eastward to Detroit and points east. The G. B. & W., in combination with the K. G. B. & W., operates as a "link" to extend this ferry route west to Winona, where connections are made with the Burlington, the Milwaukee, the Chicago Great Western, and the Chicago & North Western, for points west and north. Also, the G. B. & W. connects at various intermediate points in Wisconsin with the Soo Line, the Chicago & North Western and the Milwaukee.

About 60 per cent of the traffic on the G. B. & W. is in this car ferry route. Eastward traffic includes lumber, agricultural products, paper, cheese, etc., and the westward traffic includes automobiles, automotive parts and other manufactured products. Through traffic varies from 75 to 125 loaded cars each way daily in each direction between Kewaunee and Winona. Other through traffic between Green Bay, Wisconsin Rapids, Winona and other cities may vary from 25 to 30 cars daily. Deliveries at connections and at industries in cities are on definite schedules. If strong winds delay the car ferries on the lake, train operations must be coordinated to obviate unexpected delays en route, as well as in terminals. In this respect the radio is especially useful.

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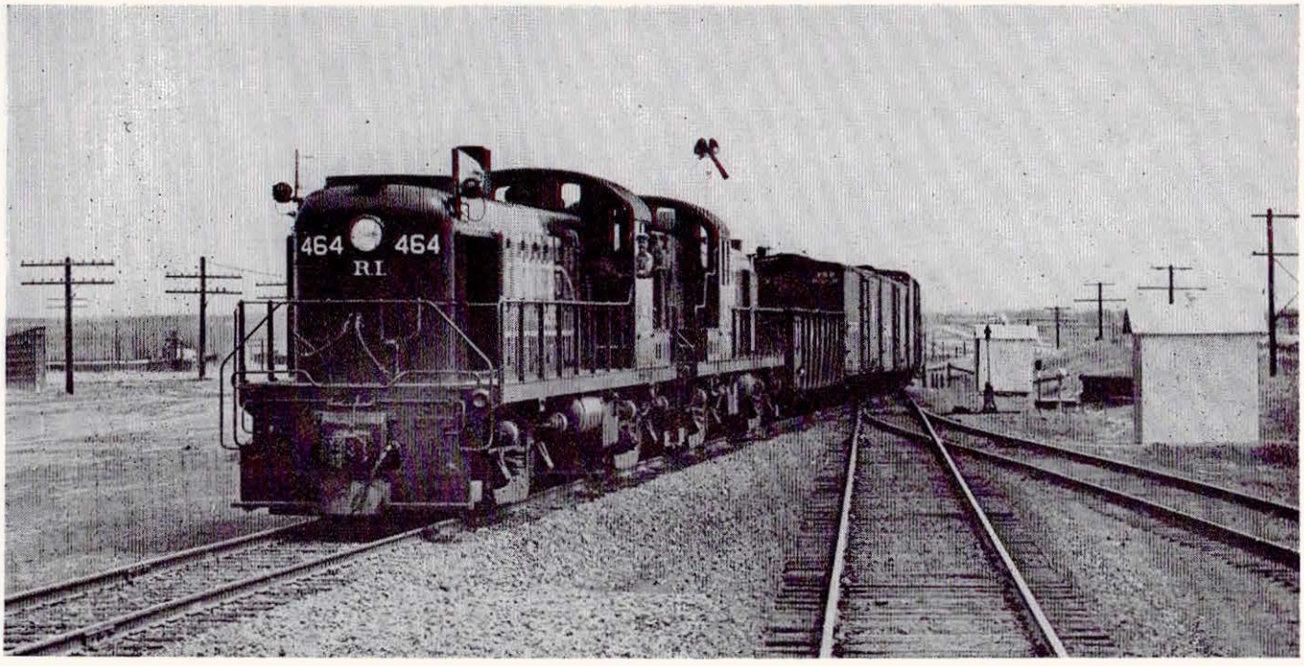


Rock Island train No. 91 heading onto the cutoff line from the Union Pacific main track at Sandown, Colo.

How Rock Island Cutoff Speeds Transcontinental Traffic

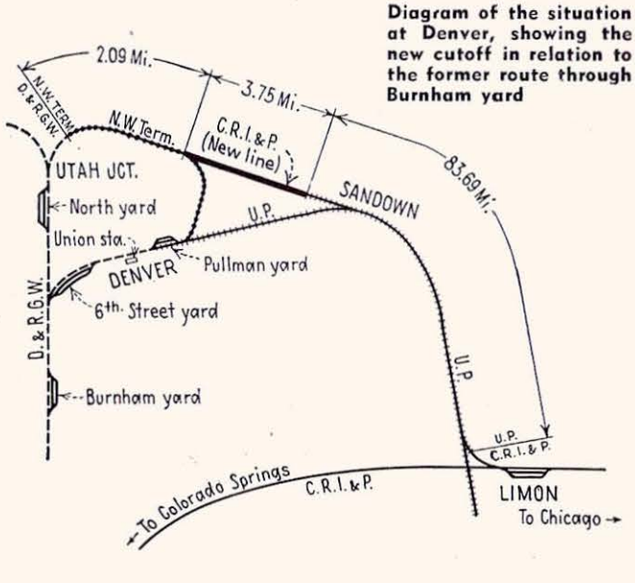
New line at Denver avoids city congestion and speeds interchange of freight with the D. & R. G. W.

On February 1, the Chicago, Rock Island & Pacific placed in service a new cutoff route through Denver, Colo. This important improvement, built at a cost of more than $2 million, is designed to place the so-called Denver Gateway route of the Rock Island and Denver & Rio Grande Western in a more favorable competitive position with other transcontinental routes with the hope of materially increasing its share of the heavy volume of traffic moving east and west, principally from and to the Pacific Coast and Intermountain territory.

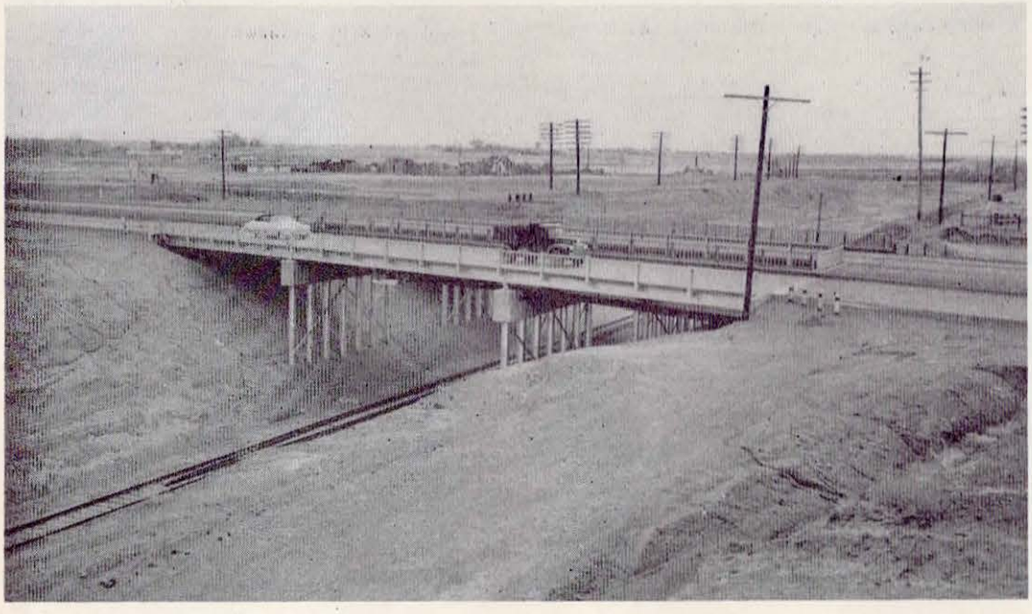
Transcontinental traffic over the Denver Gateway route is interchanged between the Rock Island and the D. & R. G. W. at Denver. This interchange traffic was formerly handled at Burnham yard by the D. & R. G. W., (see diagram) but it is now interchanged direct with the D. & R. G. W. at its new North yard* by means of the new cutoff line. This line extends from Sandown Junction, a point east of Denver on the Union Pacific (used

*See *Railway Age* of October 21, 1950, for a detailed description of this yard.

Diagram of the situation at Denver, showing the new cutoff in relation to the former route through Burnham yard



Erection of six major bridges was required in the construction of the cutoff. This ballasted-deck structure carries the Union Pacific's double-track north line to Cheyenne, Wyo., over the cutoff line



Two separate bridges, 11 ft. apart, were erected to carry U. S. Highway No. 6, a four-lane divided-traffic freeway, over the cutoff

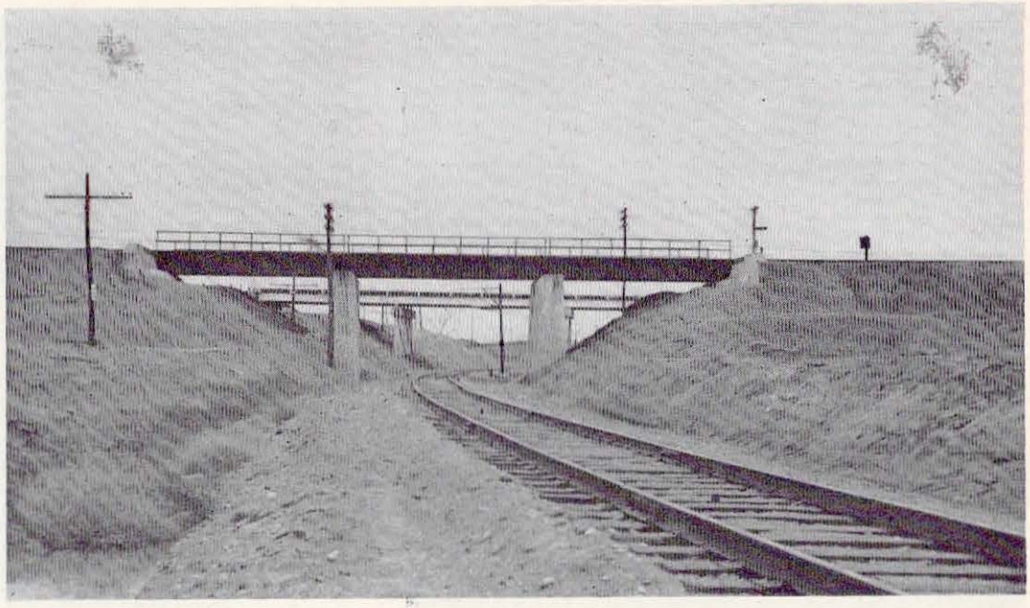
by Rock Island trains to and from Limon, Colo.), to a connection with the Northwestern Terminal, which is operated by the D. & R. G. W., over which line trackage rights were obtained to reach Utah Junction, a connection with the D. & R. G. W. north of Denver.

The new route shortens through freight movements by about six miles. The cutoff, in addition to expediting the handling of transcontinental traffic generally, will speed up the interchange of freight with the D. & R. G. W. and facilitate the icing of fruits, vegetables and other perishable freight by the modern facilities afforded at North yard. Also, the new route keeps through traffic away from Denver proper and thus enables better service to be given to business firms in the city.

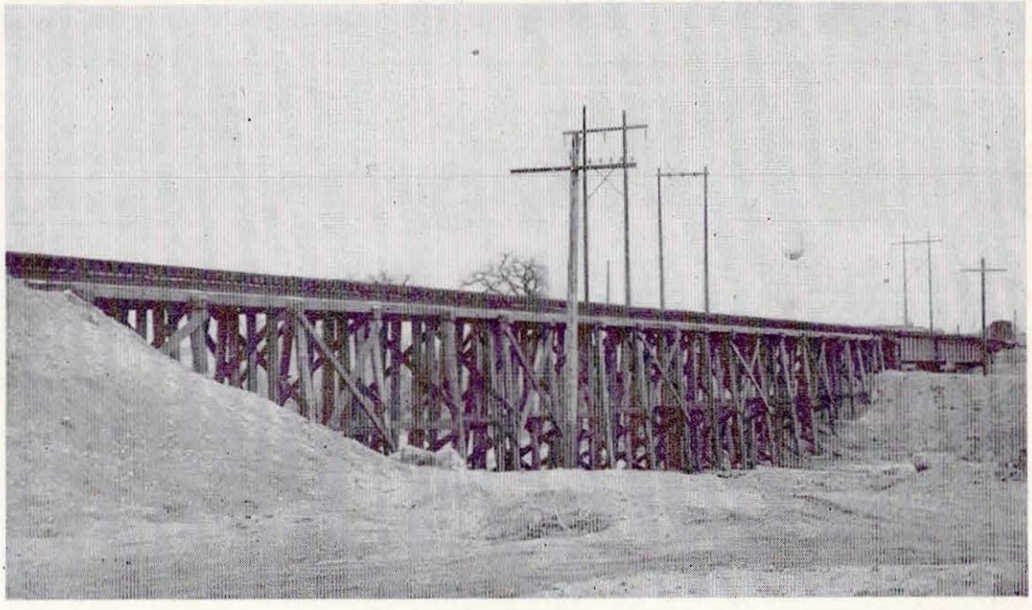
The new cutoff has opened up new industrial property for use by Denver business concerns. The Rock Island has constructed several industrial leads from the cutoff line for the development of the property adjoining it, and already several industries have located their plants there.

The project involved the construction of 4.31 miles of single-track line, of which 3.75 miles lie on Rock Island property; the rehabilitation of a portion of the Northwestern Terminal trackage; the construction of a passing track about 3,500 ft. long at the connection with the Union Pacific; and the installation of automatic block signals.

An unusual feature of this project was the need for six major bridge structures within a distance of one mile, which required an expenditure of $712,000. Three of these bridges carry tracks of other railroads over the new line. One of these is a three-span ballasted-deck structure of wide-flange beams on concrete piers and abutments, which carries the double-track main line



The new line, on a 3-deg. 15-min. curve, passes under two more bridges. The closer structure supports the main track of the C. B. & Q.; the far structure carries U. S. Highway No. 85



A combination pile trestle and deck-girder bridge carries the new line across a drainage ditch and the Platte river

of the Union Pacific; another is a three-span bridge consisting of wide-flange beams on concrete piers and abutments, carrying a main track of the Chicago, Burlington & Quincy; and the third is a three-span creosoted timber-pile structure carrying an industry spur of the Burlington. Two others are three-span highway overhead bridges for U. S. Highway No. 85 and U. S. Highway No. 6, the latter having a four-lane pavement with divided traffic. The sixth structure, 453 ft. long, which carries the cutoff line over a drainage ditch, known as "Burlington Ditch," and the Platte river, consists of two deck-plate girders on pile piers and 22 panels of pile trestle.

About 358,000 cu. yd. of grading were involved in the construction of the cutoff. The roadbed was built 24 ft. wide on the fills and 34 ft. wide in cuts, including the side ditches. The ruling grade is 0.85 per cent eastbound (on the Rock Island) and one per cent westbound (on the Northwestern Terminal). The sharpest curve is 3 deg. 30 min. The track consists of 100-lb. secondhand rail laid on No. 4 and No. 5 creosoted crossties. Gravel ballast was used to a depth of eight inches under the ties.

The work was carried out under the general direction of W. B. Throckmorton, chief engineer. The design and plans for the bridges, as well as general supervision over their construction, were handled by J. F. Marsh, engineer of bridges, but the actual bridge construction was done under contract. Signal work was planned and carried out by company forces under the direction of C. M. Bishop, signal engineer. The grading was done under contract and the tracks were constructed by company forces under the direct supervision of W. P. Hale, construction engineer.

Conductor in caboose uses walkie-talkie set normally carried in box on end of seat

In locomotive cab, the loudspeaker is above window, and microphone is within easy reach of the engineman

Radio Expedites Freight On the Green Bay & Western

Communication between the head-end and caboose on fast through freights, prevents delays on highly competitive route

The Green Bay & Western has installed two-way voice radio equipment on its freight trains operated on 214 miles of single-track main line between Green Bay, Wis., and Winona, Minn. This radio equipment is in service on five diesel road locomotives and six road-switcher diesel locomotives, as well as on the cabooses. On the locomotives, the radio equipment is rated at 10 watts, and is installed permanently. Portable walkie-talkie radio sets, rated at ½ watt, are used on the cabooses, and these same sets can be carried by the conductors or trainmen when out flagging or when walking along the train when stopped for inspection. Two of these portable radio sets are assigned to each caboose in road service.

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Brakeman uses packset radio when walking along train

in westbound trains for through movement to Winona. These trains pick up and set out cars at principal interchange points such as with the Soo Line at Amherst Junction, the C. & N. W. at Merrillan, and the Milwaukee at Wisconsin Rapids. Similarly, eastbound trains make up at Winona and East Winona, and operate through to Green Bay yard where they are broken up in blocks for delivery to Kewaunee docks and industries in the Green Bay area.

A local freight train is operated in each direction daily. This local assembles cars at Wisconsin Rapids to be picked up by the through trains. No passenger trains are operated on this railroad.

How the Radio Saves Time

When a train is being made up in the yard at Green Bay or at Winona, the radio is used by the conductor in the caboose to tell the engineer when the train line brake pressure is pumped up to normal, and to give him a verbal "highball" when all members of the train crew are on board the caboose and the train is ready to depart. Compared with using hand signals, this use of the radio saves 10 minutes and perhaps more, especially in stormy or foggy weather. At Winona, each eastbound through train is made up by assembling blocks of cars at interchange connections. These operations are expedited by using the radio between the locomotive and two walkie-talkies, one used by the conductor and another by the brakeman at the switches.

When a train on the road is entering or leaving a siding, the conductor uses the radio to tell the engineer just where the rear end is, i.e., so many more car lengths to get in the clear, or to get out on the main track. Then, when the rear brakeman closes the switch and gets on the caboose, the engineer is advised by radio so that he can accelerate the train at once. This saves time as compared with dragging along at slow speed for an uncertain distance in the hope that the brakeman has had time to hop on.

The cabooses on the G. B. & W. have bay windows on the sides, from which trainmen watch their trains ahead. If they see a hot box or dragging brake beam, the conductor uses the radio to tell the engineman. For example, on June 26, the conductor detected a hot box on the sixth car ahead of the caboose on a westbound train of 70 cars. He used the radio to call the engineer and they decided to stop at the next siding to set the car out. Previously, under such circumstances, the conductor would stop the train by an emergency application of "air" at the caboose, and, in too many such instances, the train would be pulled in two.

In the present practice, as soon as the train reduces speed or makes an unusual stop, the conductor uses his radio to call the engineer. Having determined the reason for the stop, one brakeman takes one of the walkie-talkie sets and goes back to flag, while the conductor takes the second walkie-talkie set and walks up along the train to inspect it. Having located the trouble, he uses the radio to discuss the situation with the engineer and decide where to set the car out, if such action is necessary. The radio is also a great help in making the various moves to set out the car and recouple the train. As explained by the division superintendent, the use of the radio saves 20 minutes to a half-hour just about every time something happens on the road that requires trainmen to get out on the ground to inspect the train. The major portion of the time lost previously was in getting word to the engineman by hand signals to tell him that the train was O. K., to call in the flag, and, when all the crew was on board, that the train was ready to depart. Now, with three-way radio conversation between the flagman, the conductor and the engineman, much time is saved, compared with the previous use of hand signals.

In some instances, the through trains may stop at interchange points to set off cars or pick up cars, this being done at the head end of the train. Previously, in such instances, the train pulled up with the caboose to the station so that the conductor could pick up the waybills. Then the train backed a train length, so that the cars were picked up at the head end. Now, with the radio, the locomotive is stopped where the cars are picked up at the head end. The head brakeman picks up the waybills, and uses the radio to pass information to the conductor so he can "book" the cars in his train list. This practice saves about 25 minutes.

When arriving at Winona, a westbound train is broken up by setting out blocks of cars at the various interchange points. This operation is expedited by three-way radio conversation between the engineman, the conductor, and the brakeman who cuts the cars and throws the switches. This use of the radio saves 15 to 20 minutes or more, depending on local weather conditions.

On this railroad, train movements are authorized by timetable and train orders, westbound trains being superior. When opposing trains are approaching a meeting point, the enginemen use the radio to call each other to make sure that the eastbound train is in the clear on the siding. This saves time and enhances safety. The range of radio conversation between locomotives is about 10 miles.

Details of Radio Equipment

In the cab of the locomotives, the radio handset and control box are mounted near the engineer's position. The radio electronic apparatus is in a case in the nose compartment of the locomotive. Each radio set is operated by energy from a 6-volt, 100-a.h. automotive type, lead storage battery, which is charged through limiting

resistances from the 64-volt battery used for starting the diesel locomotive engine. The radio is in operation to receive or send calls at all times when the locomotive is in service, either in the yard or on the road.

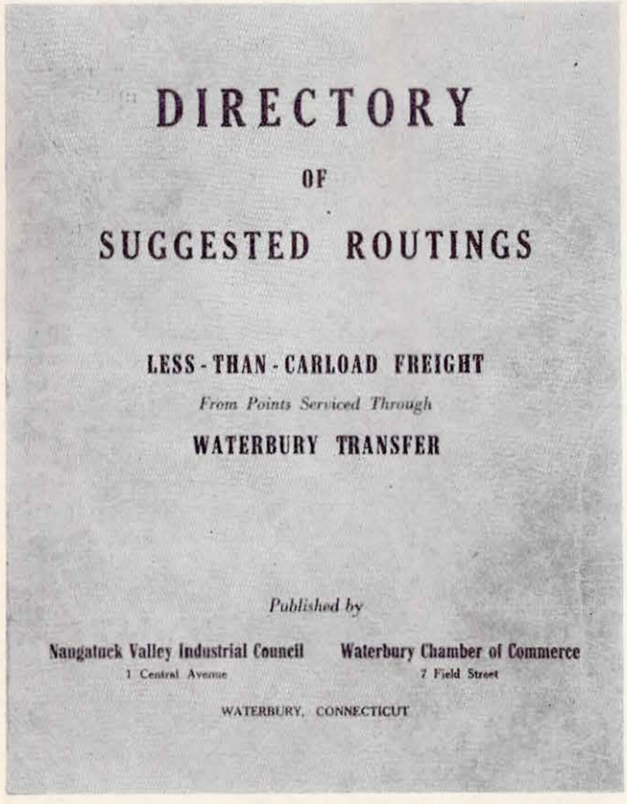
Two walkie-talkie portable radio sets, each weighing 10 lb., are assigned to each caboose normally used in road service. One set, which is equipped with a shoulder carrying strap, is normally located in a box which has metal hanger hooks that fit over the arm at the end of the caboose seat. The second walkie-talkie radio set in each caboose has a harness to fit over both shoulders so the set can be carried on a man's back, and the earphones can be clamped over a man's ear. Thus, this set can be used by a man walking along a train, climbing cars and doing other work. Either of the two sets can, of course, be used in the caboose or outdoors if the other set fails.

The self-contained batteries in each walkie-talkie have capacity to operate the set for several hours continuously, if necessary. In normal service, however, the conductor does not have his set turned on. He can call the engineer at any time, but the engineer cannot call the caboose. As a general rule, the calls are from the conductor to the engineer. Any time when the train reduces speed or

GRIFFIN PLAN

Steers L. C. L. to "On The Ball" Roads

Cooperation of Naugatuck Valley shippers and carriers makes possible loading of more through cars, thereby improving service, says plan's author



In the "Directory of Suggested Routings," dated May 28, 1951, routings from Waterbury are set up to about 370 points in 45 states and two Canadian provinces. Another revision, soon to be issued, will broaden the scope of the directory. The directory clearly indicates points to which differential rates are available via Canadian lines

[This article is a report of an interview, by a Railway Age editor, in which J. B. Griffin, superintendent of traffic of the Scovill Manufacturing Company, Waterbury, Conn., explains a plan for expedited l.c.l. service of which he is the author.—EDITOR]

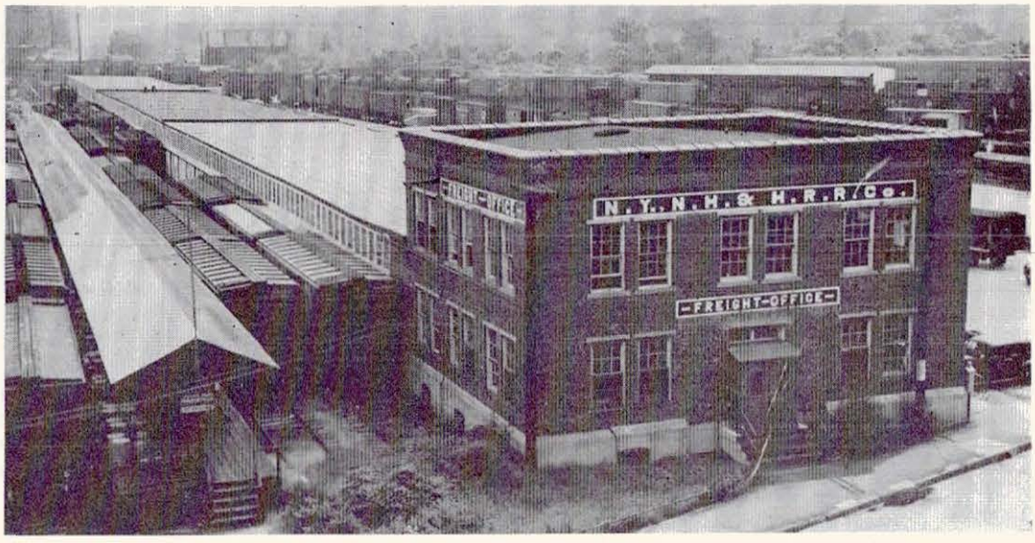
Reporter — Mr. Griffin, off and on for the last few months, we've been hearing about your plan for handling l.c.l. traffic. Just what is it?

Mr. Griffin — Briefly, it's primarily an effort on the part of the shippers in Connecticut's Naugatuck Valley to secure better railroad l.c.l. service by routing their freight via the lines giving the best service. When all of us do this, we frequently make it possible for the New Haven railroad, which originates our freight, to make frequent through cars to destinations or distant transfers, where cars, at present, at least, cannot be regularly scheduled. [The New Haven reports that in January of this year only six such cars were loaded by Waterbury, and in February two were loaded, while in March 46 such cars were loaded to 16 different destinations. For April the figures were 76 cars to 23 destinations, in May, 56 to 18, in June, 61 to 21, in July 69 to 32, while in August, estimates indicate the total reached 100 cars to 40 places. Since the inception of the plan, the percentage of total tons forwarded from Waterbury in overhead cars has increased from less than 1 per cent to about 21 per cent, based on July and August figures. There has been little change in the average tons per car. — Editor] Since our freight by-passes many transfers we get a lot better service, which enables us to sell in markets which frequently are much closer to the plants of our competitors than they are to our own.

stops, the conductor calls the engineer. Thus, according to the division superintendent, nearly all the occasions necessitating use of the radio originate with the conductor. Therefore, operating officers of the G. B. & W. are of the opinion that, for their type of train service and volume of traffic, the portable walkie-talkie sets are satisfactory, in consideration of the economy in first cost, compared with radio equipment with caboose power supply of a capacity to receive messages at all times.

In a project now under way, 10-watt radio apparatus is being installed in the yard office at Green Bay and in the yard locomotives used in this yard as well as for serving industries in the Green Bay industrial area. This system will provide direct two-way communication between the yardmaster and yard crews. Also calls can be made between the yardmaster's office and the road trains when approaching or departing from this terminal for a distance of several miles.

The radio on the Green Bay & Western was installed by railroad forces under the supervision of Alan S. Johnson, mechanical inspector in the mechanical department in charge of tests and electrical developments. The radio on the locomotives was made by Motorola and the walkie-talkie sets by Bendix.



Waterbury Transfer is the center of activity in the program of the Naugatuck Valley shippers

Reporter — As we understand it, you were the author of this plan. What made you take on what must be something of a job?

Mr. Griffin — I didn't take it on voluntarily. It was wished on me as a result of my insisting, at New England Shippers Advisory Board meetings, that while we shippers were doing a lot of yelling at the carriers about lousy l.c.l. service, we could — and should — do something to help them. So, naturally I was given the job of trying to work out some way of helping them, as well as ourselves.

Reporter — When you got into the situation what made you decide that the answer lay in routing?

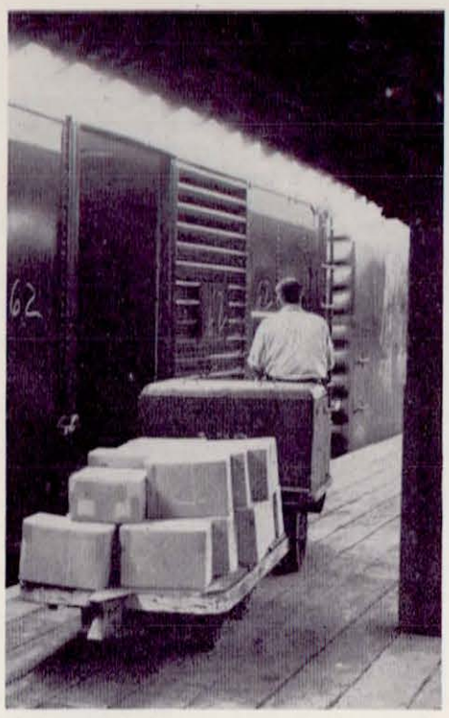
Mr. Griffin — I didn't at first, but I began by checking the service of the various carriers. I found that in one month, shipments to Chicago, for example, from our area, had been routed via 26 different lines or combinations of lines, with transit times varying from 6 to 20 days. (I also found one shipper routing the same commodity to one destination by five different groups of carriers, a different route each day in the week.) That seemed rather silly and seemed to indicate that we were all trying to please too many freight salesmen. Another check a month or so later revealed that my earlier findings were typical. Obviously, then, the thing to do was to try to persuade the shippers in the valley to ship via the best service routes. Possibly, then, the New Haven might be able to make cars to destination, or at least cars which would by-pass one or more transfers. By March of this year we began doing just that.

Reporter — Has your service improved as you expected?

Mr. Griffin — All is not yet perfection by any means, but some of the shippers in the valley have been asking, "What's got into the railroads?" Third morning from our plants to Chicago is usual now. Before the plan was in effect it was unheard of.

Reporter — What has been the railroads' part in your plan?

Mr. Griffin — Well, in addition to our using the best service route, which increases the tonnage via that route, there is better cooperation between shippers and local agents and between local agents and the agent at Waterbury Transfer, to which all the local agents load trap cars. Every day we call the local agent and tell him what we'll have for him the next day, 2,000 lb. for Miami, 1,500 lb. for Cleveland, or whatever it happens to be. The local agent in turn calls Waterbury Transfer and lets the agents there know what he'll receive the next morning. That way Waterbury can *plan* to make



Pallets and fork trucks (left) help the New Haven in handling l.c.l. at Waterbury. This car, destined to Cleveland, Ohio, is not regularly scheduled. Platform lift trucks and live skids (right) also play a part in handling l.c.l. at Waterbury

through cars. Also, we in Waterbury will call the local agent, on Monday, for example, and tell him that on Friday we'll have a 6,000 lb. shipment going, perhaps, to Fort Worth. Waterbury then will plan a Fort Worth car for Friday, holding any Thursday freight for that city unless there should be enough for a Thursday car, too.

Reporter — Doesn't holding some of that freight for a day cause some shippers to complain?

Mr. Griffin — No, because, despite an extra day's layover at origin, we still get better service when we load the through car than we get when the freight has to go through the normal complement of transfers.

Reporter — Do the people in the valley get the benefit of some reduced rates or do you pay the regular transportation charges?

Mr. Griffin — All our freight is transported at regular l.c.l. rates.

Reporter — How about some of the railroads? Have any of them complained about being left off the "approved" list in your routing guides?

Mr. Griffin — A few of them. We think that's unfortunate, because they're always telling us how they like to compete, with the trucks and among themselves. We say, let them compete, and if they can compete in service they'll get some of the business. I might say that the "approved" route today may be on our "mud list" tomorrow if the participating carriers don't stay "on the ball." We'll give anybody a crack at our business if they can equal — or improve on — service via the currently suggested route.

Reporter — I note that your present routing guide includes a very limited number of destinations. I assume that this will be expanded at a later date.

Mr. Griffin — Yes, there'll be a new guide published in a couple of weeks. And incidentally, there'll be some changed routes, too, for some of the carriers have not performed as advertised.

Incidentally, you may be interested in how we intend to check on the carriers' performance, and thereby try to keep them on their toes. Quarterly, we will publish a complete survey of transit times, which will show billing date, destination and arrival date. This survey will be available to all carriers. They'll know who's doing all right by noticing the destination. Any line dropped from our guide also will know immediately why it has been dropped. No route, shipper or consignee will be shown. Also, monthly, we'll make spot checks so that we'll know all the time what is going on.

Reporter — Mr. Griffin, are all the shippers in the Naugatuck Valley cooperating with you in your plan, or are some of them "bucking" you, for one reason or another?

Mr. Griffin — I'd say about 90 per cent of them are going along. But there's nothing compulsory about the plan, naturally, and anyone can route his freight as he sees fit. However, I don't think he should then kick about poor service, if that's what he gets.

Reporter — What do you think of the possibility of your plan expanding to other areas?

Mr. Griffin — Well, there's a lot of interest in it, and if it continues to be as successful as it has been to date, and there's no reason why it shouldn't, I expect that other areas can and will work out similar arrangements.

Reporter — What does this plan do for the railroads?

Mr. Griffin — For one thing, I'm sure the New Haven will tell you it has brought it increased business, and if service continues to improve there is no reason, in my opinion, why the railroads shouldn't get even more business.

Since many transfer handlings are saved there should be, eventually, savings also in handling costs and in loss and damage claims. Perhaps most important of all today, we think many car-days are saved. We think it's better to tie up one car for a few days' trip, going to Fort Worth, than it is to tie up several cars, for a total of perhaps as much as 15 to 20 days going to the same place.

The Kansas City Southern purchased its first diesel in 1939, and has been steadily increasing its diesel ownership ever since. The system's operations now are almost completely dieselized

Service and Foresight Combined in

The Development and Growth Of the Kansas City Southern

Service—the kind that attracts and holds shippers—has been an important element in the development of the Kansas City Southern-Louisiana & Arkansas lines into heavy-duty railroads linking Kansas City with the new industrial empires in Louisiana and Texas. By a combination of "lifting one's self by the bootstraps" and participation in the recent industrial growth of Texas and Louisiana, K.C.S. management has been able to provide the facilities needed for efficient, modern freight and passenger service, and to impart a healthy color to the lines' financial complexion.

Barely twelve years ago the Kansas City Southern and the Louisiana & Arkansas—now operated by a common management as Kansas City Southern lines—were two independent railroads. The Louisiana & Arkansas, extending from New Orleans to Dallas, with a branch from Alexandria north to Hope, Ark., had been built as a combination of lumbering roads and in later years served as a local carrier handling miscellaneous commodities. The Kansas City Southern was built to provide Kansas City with a short-line rail route to the Gulf of Mexico, chiefly for the movement of grain but also to tap the natural resources of the area—coal, oil, zinc, lead, timber, etc. In 1939 the K.C.S. purchased control of the Louisiana & Arkansas, and subsequently acquired all outstanding indebtedness of that line, making it a wholly owned and controlled subsidiary. This acquisition gave the K.C.S. entrance into Alexandria, Baton Rouge, New Orleans and Dallas—all important traffic centers.

The emergence of the new and vigorous K.C.S. lines has been given a material assist by the rapid and extensive industrial growth in eastern Texas in the years since 1939. More recently, the Louisiana & Arkansas has been experiencing somewhat similar industrial growth at Baton Rouge, New Orleans, and at points along its southwest Louisiana lines.

But in order to "cash in" on the benefits of all the

One of the first railroads to experiment with end-to-end radio, all K.C.S. and L. & A. road diesels—both freight and passenger—and most of its road cabooses are so equipped. It has proved valuable in speeding the movement of trains, both over the road and in and out of terminals. This picture was taken as the train passed Sulphur Springs, Ark., just over the Missouri state line. The auto-type aerials attached to the locomotive number boxes—barely visible in this photo—are an experimental installation and have proved very satisfactory

traffic potentialities of this new development, the K.C.S.-L.&A. combination had to tailor its services and facilities to attract and hold this traffic. Inasmuch as most of the new industrial centers are also served by one or more other railroads, the K.C.S. had to be able to offer competitively attractive service and facilities.

Shrewd management, coupled with intensive traffic solicitation and a determination to do a bang-up job for its shippers, enabled the road to meet the challenge. These efforts produced increased traffic, which in turn produced increased earnings—which could be plowed back into essential property improvements.

"Hotshot No. 77"

One of the moves by which the K.C.S. sought to regain traffic was the inauguration of No. 77—a fast merchandise train from Kansas City to Shreveport and Port Arthur. It was extended to New Orleans and intermediate points when the L.&A. was acquired in 1936. This train with the "double lucky" number covers the 786 miles between Kansas City and Port Arthur in thirty hours and thirty minutes—an average of over 25 m.p.h. including time in terminals. Inasmuch as the traffic handled on this train is interchanged with fast trains of a dozen different railroads at thirteen intermediate points, No. 77 has both a fast and a difficult schedule—which it has kept with singular regularity for over 15 years.

The road caters to the needs of the large petroleum industry in the Baton Rouge, Shreveport, and Lake Charles-Beaumont-Port Arthur areas. For the movement of petroleum products a fast northbound train—No. 42—is scheduled to the needs of this traffis, providing fast connections with diverging railroads. This train handles all commodities requiring expedited movement.

Because it operates the short route from Kansas City to the Gulf of Mexico (at Port Arthur), the line normally experiences a substantial movement of export grain—moving both through Port Arthur and New Orleans. The road owns a 500,000-bushel capacity grain elevator at Port Arthur—the main K.C.S. port for export grains—and has access to the 2,600,000-bushel public elevator at New Orleans, now being doubled in capacity. At Kansas City the line serves exclusively two elevators with a combined capacity of 4,200,000 bushels. Years of experience with Gulf grain traffic has taught the company how to handle large grain movements from the grain centers to shipside quickly and efficiently.

Overhead Traffic

Through operations—both north and south—are enhanced by the fact that the K.C.S. normally has a fairly even balance of traffic, with about 52 per cent southbound. This permits efficient utilization of crews and equipment—and thereby better service.

An important element in the system's great improvement in traffic in recent years—other than the advantages accruing to the K.C.S. in acquiring the new traffic outlets of the L.&A.—has been success in winning a substantial flow of overhead traffic. This traffic was won by intensive, planned solicitation, and by offering fast-stepping, carefully timed services which enable shippers actually to save time by specifying the K.C.S. lines as intermediate carriers. Close attention to schedules—including the schedules of connecting lines—has enabled the line to offer some unusually attractive services in connection with other roads. In fact, it has been the system's policy to develop every possible combination of routes with connecting carriers at 27 separate interchange points.

The growth of the synthetic rubber and chemical industries in the Lake Charles-Beaumont-Port Arthur area, with K.C.S. industrial trackage threading almost the entire area, has brought substantial new traffic. A similar development of the petroleum and chemical industries in the vicinity of Baton Rouge and New Orleans is likewise opening new sources of traffic.

The management has not been content to rest with these developmental projects, but has sought other new industries in order to provide the line with a greater diversification of traffic. Industrial development activity helped effect the location of a large pig iron and coke plant of the Lone Star Steel Company at Daingerfield,

Tex., served exclusively by the Shreveport-Dallas line of the L.&A. This mill—now being enlarged by the addition of a rolling mill—consumes an average of 33 carloads of coal daily, a large percentage of which comes from fields served by the K.C.S. in Oklahoma. Outbound shipments of pig iron, coke, coal tar, etc., aggregate about 20 cars daily.

Another industrial "exclusive" was the location of a large plant of the International Pulp & Paper Co. at Spring Hill, La., on the Alexandria-Minden-Hope line of the L.&A. This plant receives more than a hundred carloads of pulpwood daily, much of which originates on the K.C.S. and the L.&A. Outbound paper products average 40 cars daily.

These examples are representative of the effectiveness of the road's industrial development activities.

Improved Plant

The K.C.S. originally found its chief traffic in Gulf export grain, petroleum products from Gulf area refineries, coal from the Pittsburg and Heavener areas, and lumber. During the 1920's, when traffic was expanding on most roads, the K.C.S. experienced but small gains as its territory gradually became timbered off, as competition from other roads for coal traffic grew more severe and as pipelines and tankers carried more oil. In common with all roads, traffic dropped steeply during the depression. Traffic volume hit bottom in 1933, and in 1934—with the opening of new oil fields in its territory—began to recover.

At this time the management decided to embark on a program of property improvement—in which the then-meager earnings of the company were plowed back in capital investments—in order to participate more fully in the fruits of the heavy industrial growth foreseen for the future. The first improvements made were those which would produce the largest return on the investment. These made possible greater operating economies, which in turn made more earnings available for investment in a better plant. This reinvestment of earnings is the principal method used by the road to finance most of its improvements—other than equipment purchases. In this respect, it has been greatly aided by an ownership-management willing to forego dividends on its stock, if necessary, in order to use all available funds to build up the physical property.

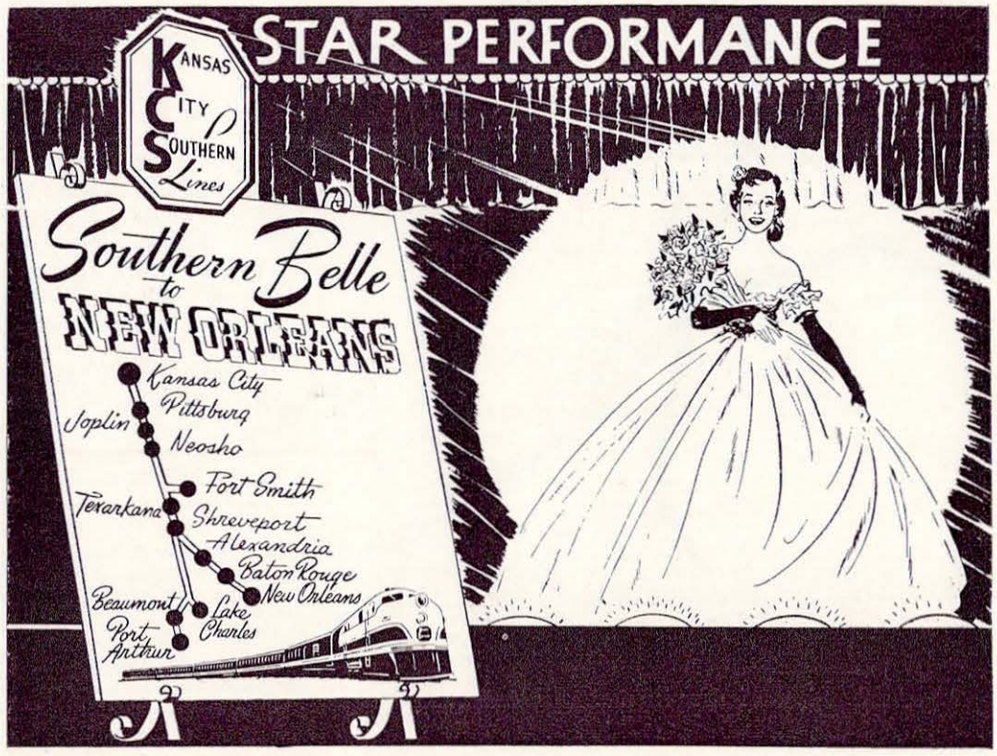
Among railroads west of Chicago, the Kansas City Southern was a pioneer in the use of heavy rail. It also was one of the first to use treated ties exclusively, while a continuous ballasting program—principally with chatt and gravel—has given the line an unusually sound roadbed.

Relaying of the 432-mile Northern division with 127-lb. rail was begun in the Twenties and was completed several years ago.

On the Southern division, the 128-mile district between DeQueen and Shreveport is laid with 112-lb. rail. Before the year is out, the line south of Shreveport to Beaumont will have been laid with 100, 112 and 115-lb. rail, leaving only the 20 miles of main line between Beaumont and Port Arthur to be replaced.

At the time the Louisiana & Arkansas was acquired in 1939 it, too, was built to light standards and in need of extensive strengthening in order to accommodate the heavy traffic forseen by the K.C.S. Work on this track—though pursued diligently—has been proceeding somewhat more slowly due to the difficulties in obtaining adequate rock or slag ballast (now solved by the location of the Lone Star Steel plant on L.&A. lines). An extensive tie renewal program has given this line all treated ties, and at present the slag ballasting program is moving forward at the rate of about 50 miles a year. The original 70- and 80-lb rail has been largely replaced with 90-, 112- and 115-lb.

Recently, in order to accommodate burgeoning traffic, new yards have been built at New Orleans and Baton Rouge. They are designed for the fast, economical move-



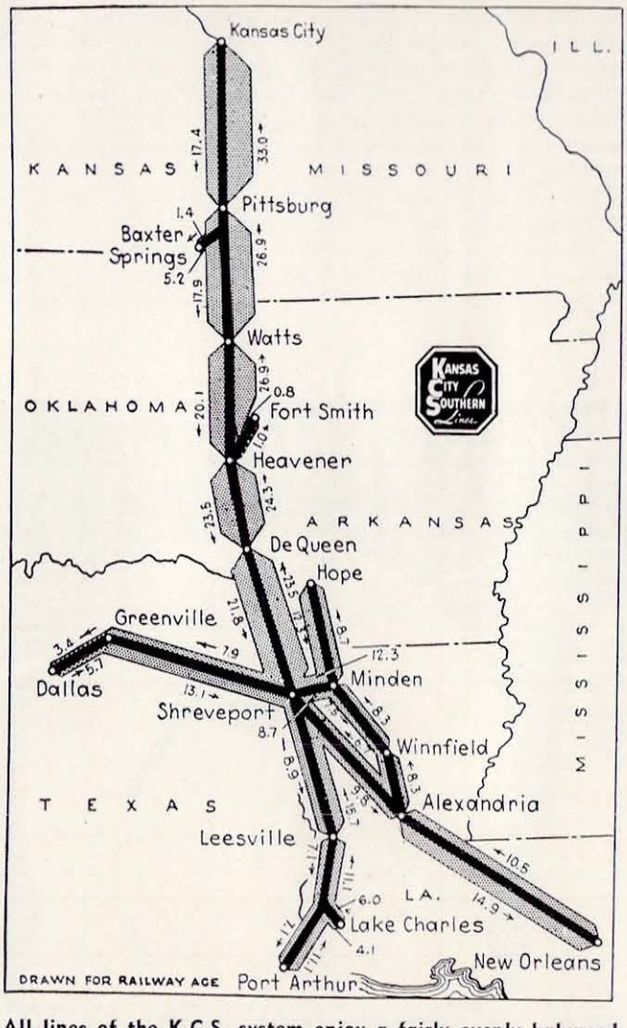
As an operating man, W. N. Deramus, president of the Kansas City Southern Lines, is inclined to take an unhappy view of the million dollar out-of-pocket deficit run up by his passenger trains in 1949. "If it weren't for our passenger trains, we could have an even lower operating ratio," he explains. But when talking as a traffic man his viewpoint is somewhat different. The inauguration of the first "Southern Belle" in 1940 dramatized the K.C.S.'s new role as a major north-south carrier in a way nothing else could do. In 1949 the growth of the line was further symbolized by the inauguration of a third passenger train — postwar "Southern Belle"

ment of cars, and have leads long enough to accommodate the longest trains. At present the K.C.S. and the L. & A. operate separate yards in Shreveport connected by a stretch of track running through city streets. Plans are now completed, and preliminary work started, on a new consolidated yard just north of the city. A new stretch of track will be constructed to connect this yard with the Shreveport-Dallas line, to eliminate reverse movements in the center of town.

A grade reduction and line straightening project is now in progress on the Shreveport-Dallas line—a somewhat neglected branch of the L. & A. before the K.C.S. took over—as a part of a program of improving operations on that line. Modern diesel repair facilities have been constructed at Pittsburg and New Orleans.

Prudent Management

The K.C.S.'s continued low operating ratio is attributed to extensive traffic development, and to a flexible, yet constant and attentive control of costs. Both the K.C.S. and the L. & A. are prudent in their use of manpower—a very expensive item in the present-day operation of railroads. As a result care is taken to obtain the best possible value for every wage dollar. This has led to the establishment of highly mechanized maintenance-of-way gangs, and shops equipped with modern tools designed to improve production and quality. Station and terminal expenses are watched constantly and carefully so that no opportunity for economy will be overlooked. But economy is not practiced for economy's sake: service standards are kept high at all times and, insofar as earnings will permit, the plant is maintained in the best possible condition. The management recognized that, under present competitive conditions, without service there can be but little revenue, so although ways of reducing costs are constantly being explored, service standards are carefully observed.



All lines of the K.C.S. system enjoy a fairly evenly balanced traffic flow. In many cases, where locally originated and terminated traffic flows predominantly in one direction, volume in the opposite direction has been built up with overhead traffic. The line serves an area rich in a wide variety of natural resources

Flexible Cost Controls

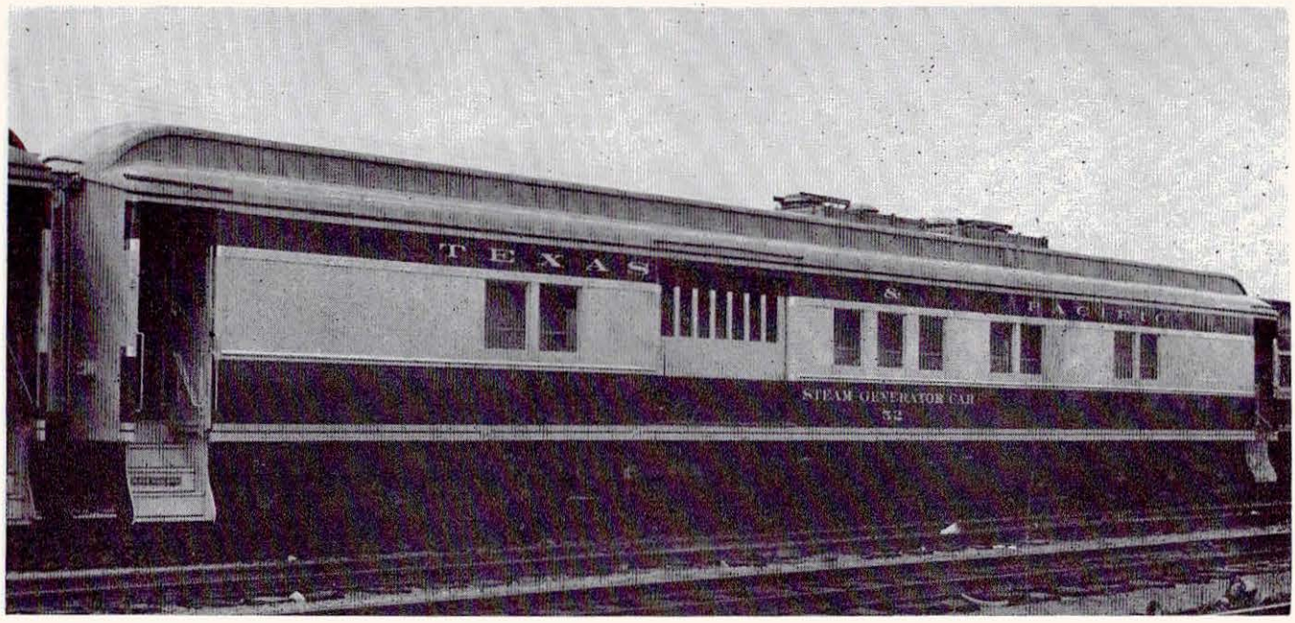
A powerful weapon in the K.C.S. strategy of controlling money outlays is its system of budgetary controls—tight overall, yet finger-tip flexible. As on most roads, departmental operating and capital improvement budgets are prepared each fall for the following year, based on anticipated earnings. The annual budget is broken into monthly allotments, and each departmental budget is broken into minor accounts. Although conditions frequently arise which require juggling the amounts apportioned to different accounts within a departmental budget, under no circumstances may the total amount budgeted to each department be exceeded without executive authority.

On the K.C.S., as the year progresses, actual revenues are watched closely and compared with the budgetary estimates. Just as soon as it becomes evident that earnings will not be up to the level anticipated, the total budget is cut immediately—not next month or next year—to a level in line with actual earnings. These cuts are not blanket "across the board" slashes, but are judiciously apportioned between various departments so that essential maintnance can be continued, projects under way can be completed, or unusual conditions be protected where cutting immediately available funds would cost the company more money in the long run. The largest amount of adjustment is usually made in the capital improvement budget. The trimming of operating budgets is handled with caution because the management realizes that too much "stop and start driving" is both extravagant and wasteful in its use of manpower and funds.

As a result, in spite of the budgetary ups-and-downs of the railroad, K.C.S. continues to maintain its high standards of service. Earnings can fall so far as to require a reduction in train service, or the discontinuation of essential maintenance. But when these conditions do occur, they are administered with caution and common sense so as to cause the smallest possible disruption in service to shippers.

The successful operation of such a system of budgetary control requires more than just a plan—it requires a smoothly functioning organization, with *every* individual employee fully aware of the system, its purpose, and how it works. That it works so well on the K.C.S. is a tribute to its personnel and organizational administration, as well as to the administration of the budgetary system itself. The road's continued low operating ratio—even in the face of current inflationary costs—is concrete evidence of its effectiveness.

The K.C.S.'s program of "hoisting itself by its bootstraps" is far from completion—and not all of the story has been told here. Even though the line has made spectacular progress in the past twelve years, self-improvement and growth will continue.



One of the automatic steam generator cars being built by the Texas & Pacific

How the Texas & Pacific Uses

Steam Generator Cars

The Texas & Pacific designed and placed in service in November of last year its first fully automatic steam generator car, No. 50, which was described briefly in *Railway Age* December 23, 1950, page 29. With the experience gained by the operation of this car the road now has underway the equipment of two additional cars of similar design. These cars are expected to solve the vexing problem facing the T.&P., like every railroad striving to be 100 per cent dieselized, in that they provide a flexible and mobile source of steam supply to meet variable and unusual periods of weather — both for heating passenger and troop trains and for emergency and standby power plant requirements over the entire railroad. They are also ideally suited for use during the summer months to supply a large volume of steam for the operation of steam-jet air-conditioning systems on passenger cars in regular passenger service and in troop trains.

For Motive Power Flexibility

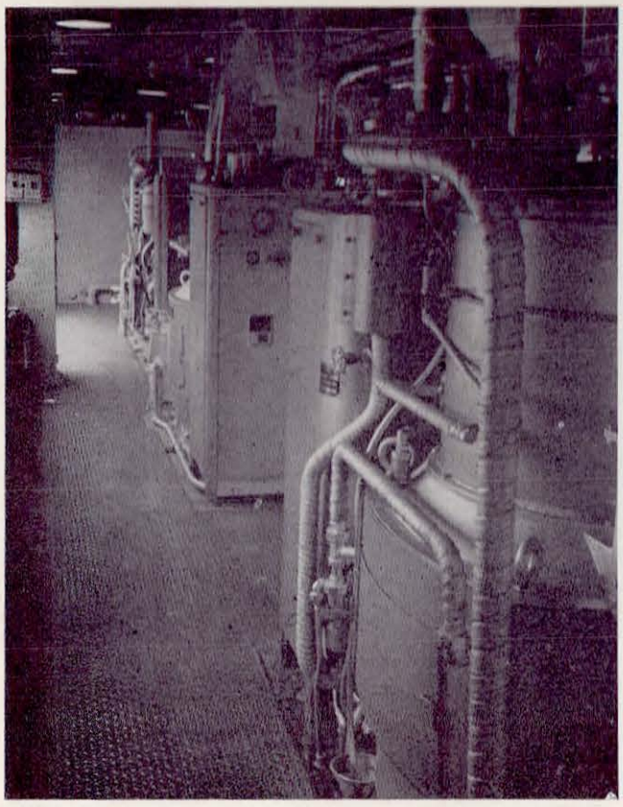
The Texas & Pacific has completely dieselized divisions, and like a number of other railroads, is well along to achieving its ultimate dieselization program. With the Korean war straining facilities still more, the road reports that it is difficult at times to provide diesel passenger locomotives for each passenger and troop train for the divisions that have been completely dieselized. By utilizing a steam generator car it is possible to handle passenger equipment with freight diesel locomotives not equipped with steam generators.

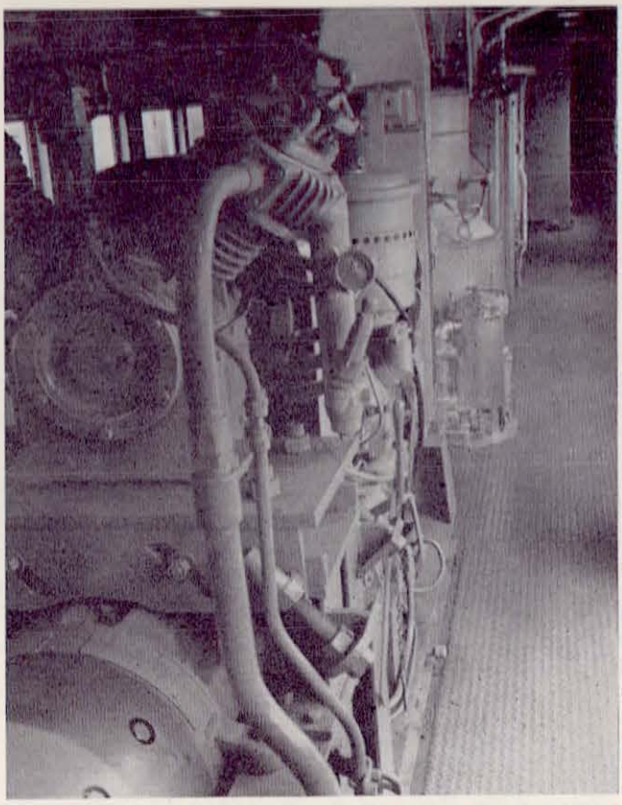
The cars are versatile since they not only generate steam, but produce their own compressed air for fuel-atomizing purposes and also generate electric current for the operation of motors on steam generators and for "trainlining"" to other cars for lighting purposes. They have sufficient additional capacity to operate mechanical air-conditioning systems on adjoining cars, or provide lighting in case of light failure on a train in which this car may be operating.

The cars also are valuable for assignment to special services, such as car movements at remote stations where heating and electric facilities are not available. When used in this manner as a stationary plant, the car can provide air and necessary electric current from its batteries, or by power generated by the diesel engine, or a.c. motor-driven generator for heating, lighting, water raising system and air conditioning.

Construction and Operation

The T. & P. steam generator cars are converted from steel coaches by removing the interior equipment, closing part of the windows and applying a large baggage-type side door on one side of each car for servicing purposes. Special equipment installed in the first car includes: Two Vapor-Clarkson 3,500-lb. steam generators; one 25-kw. Safety genemotor, 80-volt d.c., 32-hp. a.c.; one General Motors three-cylinder diesel engine, Model 3030-C; one Gardner-Denver air compressor Model ADS, two-stage 31-cu. ft. per min.; two Frigidaire evaporator-type exhaust fans. Edison electric storage batteries are 50-cell, 12-AHW, 900 amp.-hr. rating. Mounted on six-wheel trucks with 5½-in. by 10-in. journals, the car has a light weight of 158,400 lb. and a loaded weight





Left—Interior of Car No. 52. The two Vapor steam generators of 2,750-lb. per hr. capacity, are in the foreground. Behind them is the air compressor, genemotor and diesel engine set with one of the car's two water tanks in the rear. At the extreme left is a portion of the electric locker. Right—The air compressor and electric generator

of 204,400 lb. It is equipped with tanks to carry 1,100 gal. of fuel and 4,900 gal. of water. There are King fuel and water gages and standard diesel fill-up connections for water and oil.

The first car was also equipped with a car-body air filter at each vestibule end to filter all air drawn in. The glass was removed from the vestibule side doors and replaced with a grill to allow air to come into the vestibule and hence through the car-body air filters. Two fans in the car roof exhaust hot air from inside the car. Two hatches in the car roof over the steam generators give access for removing and applying parts during maintenance and overhaul.

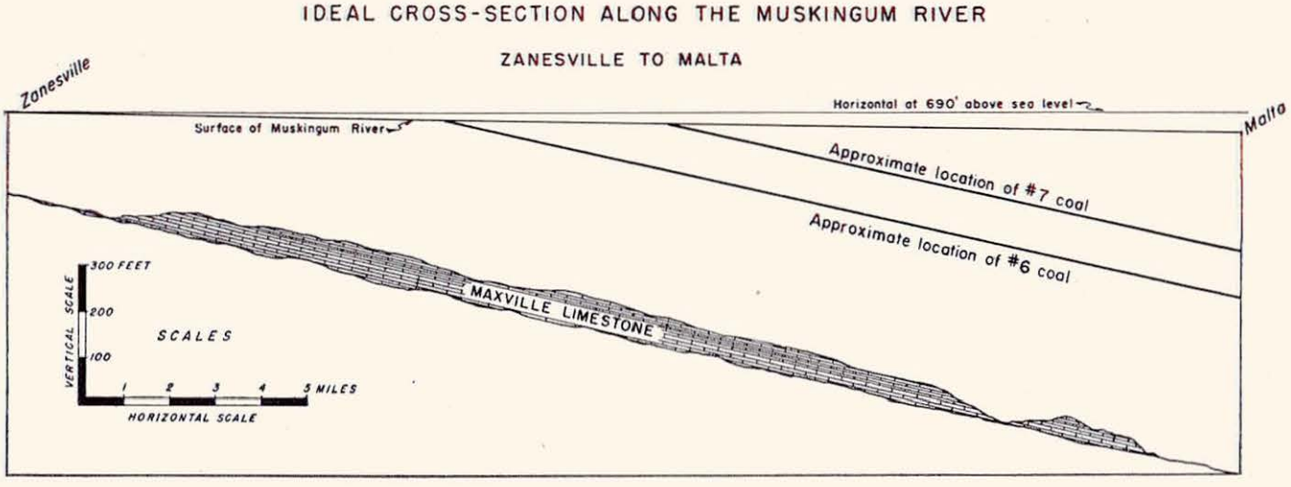
Should the diesel engine for any reason become inoperative and the supply of air and electric current be curtailed, the batteries are of sufficient capacity to operate the steam generator for approximately 3½ hr. The car has an air connection hose at each end which can be connected to the main reservoir air line of a diesel road locomotive in an emergency, thus supplying air for atomizing the steam generator fuel.

If the car is being used as a stationary power plant where electrical standby supply is available, the diesel engine driving the generator and air compressor may be shut down. Spare parts for the diesel engine are carried inside the car to be readily available should mechanical trouble develop.

With the large-capacity water and fuel tanks, the car can, if necessary, furnish steam continuously in normal operation for a 20-car troop train from Fort Worth to El Paso, 615 miles, before having to replenish the fuel and water supply.

The two additional steam generator cars now being built, numbered 51 and 52, are essentially the same as the first cars, except that they are equipped with two 2,750-lb. steam generators, since the original unit with larger capacity generators is expected to meet all major emergency power plant and standby needs. Among other refinements, based on experience with the first car, are stack covers for inactive duty, combination fresh-air intake from the car body or through the roof to facilitate car heating in winter and cooling in summer, fill-up and from one spot for both fuel and oil, and two sets of 1,000-amp. hp. lead batteries.

"I refuse to believe that the railroad industry is a dying industry or that it will be crushed by its current problems. The solutions will be found more quickly and more satisfactorily if the public takes a thoughtful, intelligent attitude toward its regulation of the railroads. But in any case their problems will be met because the railroads are too important a part of our civilization to be permitted to die, because the spirit of railroad men which met their original challenge is still capable of meeting current problems. We will be dependent upon railroads in this country for many years to come and the issues will be solved out of national necessity, but whether this is done under private enterprise or socialism will be greatly influenced by the American public and its attitude toward transportation regulation and competition over the next few years." — *From an address by H. E. Bixler, general superintendent transportation of the Boston & Maine, to the Sanford-Springvale Rotary Club, Sanford, Me.*



This cross-sectional diagram shows the depth below ground and the thickness of the Maxville limestone in Muskingum and Morgan counties, Ohio. The B. & O. runs through this area in a generally northwest-southeasterly direction

Need High-Calcium Limestone?

"Plenty Along Our Line," Says the B.& O.

Railroad's industrial geologist reports big market for mineral in steel industry as grade of ore being used changes; flux needs tied to lack of good coking coal

High-calcium, relatively pure, limestone, a raw material indispensable to many major industries is available in a number of areas along the lines of the Baltimore & Ohio in eight of the thirteen states it serves, says a voluminous and handsome industrial development report recently published by the railroad. (This report is the second in a series describing mineral raw materials in the area served by the B. & O., and follows the railroad's "Salt Report.") Entitled, "High-Calcium Limestone in the Area Served by the Baltimore & Ohio Railroad," this loose-leaf type book consists of 105 pages of information on the quantity and quality of the limestones found in the various localities served by the B. & O. Twenty-seven maps and cross-sectional diagrams, in color, are provided to orient the reader and to show the location of the various branches of the Baltimore & Ohio in relation to the deposits of limestone. The brochure is designed to acquaint industrial users or producers of high-calcium limestones with the sources and characteristics of this product in B. & O. territory, as well as to give a rough estimate of the amount of work needed for recovery of the rock.

The author of the study, John A. Ames, the B. & O.'s industrial geologist, assures the reader that in spite of many changing conditions in the market for high-calcium limestone, especially in the steel industry, which is the largest consumer of limestone (as flux), "it is probable that increasing demands for truly high-calcium stone will continue because of relative economy and purity its use imparts to the finished steel. Higher grade foreign ores and domestic concentrates may go directly to the steel furnace. The purer high-calcium limestone will continue to be open hearth flux, since dolomite cannot substitute in this type of fluxing . . . Along with the not-so-gradual depletion of domestic 'high-grade' ores is an equally apparent drain on the supply of really good coking coals. As consequent utilization of lower grade coals increases, along with steadily mounting steel production, the demand for fluxing stone—at least for the foreseeable future—logically may be expected to show a corresponding increase."

Illustrative of one type of technical material in this book is the cross-sectional diagram printed below. Also, detailed analyses are given of the chemical content of the material in many of the areas described, e.g.:

BAKERTON, W. V., AREA

Calcium	$CaCO_3$	**98.21**	**per cent**
Magnesium carbonate	$MgCO_3$	**0.86**	**per cent**
Silica	SiO_2	**0.02**	**per cent**
Ferrous oxide and alumina	Fe_2O_3-Al_2O_3	**0.75**	**per cent**
Sulfur	S	**0.09**	**per cent**
Phosphorus	P	**0.007**	**per cent**

Several appendices provide summaries of information in the text of the book as well as some additional information, such as a glossary of geological terms used. Also, one learns from Appendix C, "Summary of Stratigraphy," for example, that the Frederick (Md.) limestone deposits are approximately 500 ft. in thickness and that, geologically, they are from the Upper Cambrian

age. Wherever possible, information is given as to whether or not the stone may be recovered by quarries and drift mines or whether the limestone formations are best worked by shaft mining. Maps and summary tables at the end of each chapter indicate just which of the counties in the various states served by the B. & O. have quantities of limestone which may be tapped commercially.

According to the railroad, all the information relevant to the various states has been checked by the state geologists or their authorized representatives. The states involved in this report are Illinois, Indiana, Maryland, New York, Ohio, Pennsylvania, Virginia and West Virginia.

Despite its impressive scope and detail, the B. & O. makes no pretense that this study is an exhaustive one. It hits the high spots and then appends an extensive bibliography (94 references) of articles and books dealing with the subject. If any reader requires more information the B. & O. invites him to submit specific questions to its industrial development representatives or to its industrial geologist.

Joseph A. Fisher New Reading Company Head

Presidency goes to traffic-trained, operating-minded civil engineer on retirement of Revelle W. Brown

Joseph A. Fisher (left) took office as president of the Reading Company on September 1. Revelle W. Brown (right) retired on August 31 under a plan for earlier retirement age which he introduced on the Reading

On August 31, Revelle W. Brown retired as president of the Reading, a position he had held since 1944. On September 1, Joseph A. Fisher, executive vice-president, took his place as chief executive officer of the compact 1,291-mile road. In relation to the larger roads the Reading may seem a geographical pigmy, but it is, on the other hand, a tonnage giant. The Reading stands fifth among the nation's railroads in total tonnage handled, being exceeded only by the Pennsylvania, the New York Central, the Baltimore & Ohio and the Chesapeake & Ohio. Heavy tonnage on relatively little mileage makes the Reading a heavy density carrier.

Mr. Fisher was born at Sayville, Long Island, New York, in 1895. He had a rough time of it financing his tuition through Lehigh University, performing odd jobs in his free time. Spare moments were fewer than usual during his senior year when the curriculum was advanced on account of impending war. He graduated in 1917, a month early, with a civil engineering degree, and immediately took war work in McClintic Marshall's Pittsburgh steel mill. Mr. Fisher eagerly enlisted in the field artillery upon our entry into World War I, and later took an examination for a commission in the Corps of Engineers. His commission came through and followed him overseas without catching up with him before his separation as a second lieutenant in the Artillery.

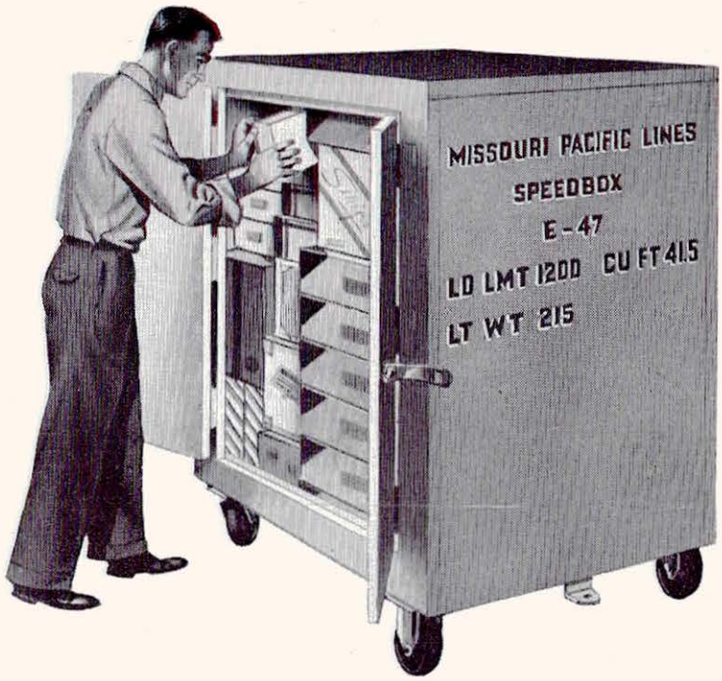
Brief service in a position with the National Slag Company first brought Mr. Fisher into contact with problems of distribution, freight rates and transportation service. Later, in taking a post-graduate course in business administration, he devoted some of his ingenuity to the reorganization of Lehigh's alumni association, through which he learned that the Reading was looking for college graduates who wanted to make a career out of railroading. Young "Joe" Fisher considered this a challenge—one he accepted even before ascertaining his rate of pay.

Traffic "Engineer"

Starting as a special agent in the traffic department in October, 1921, Mr. Fisher became involved in a number of special problems—an involvement which, to his delight, was to absorb him for the next 29 years—

(*Continued on page* 65)

ANOTHER MO-PAC "FIRST"



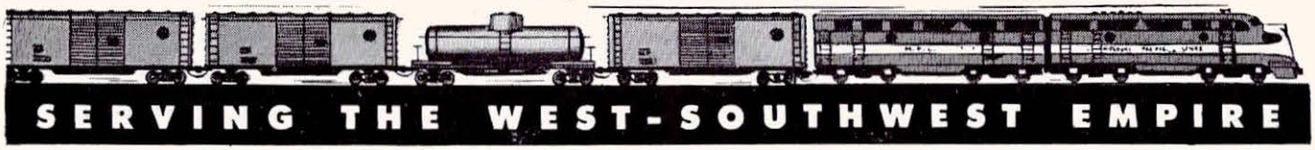
...the "SPEEDBOX"

An exclusive MO-PAC development, the Speedbox is an outstanding time-and-money-saver for the L. C. L. shipper. This lightweight metal container makes possible door-to-door transport of merchandise with a minimum of handling, checking and "paper work."

Locked while en route between consignor and consignee, the Speedbox eliminates customary railroad loading and packing requirements but, despite important savings in time, drayage and materials, no extra charge is made for its use. This new service is available now between many MO-PAC stations. Call or write your MISSOURI PACIFIC representative for details.

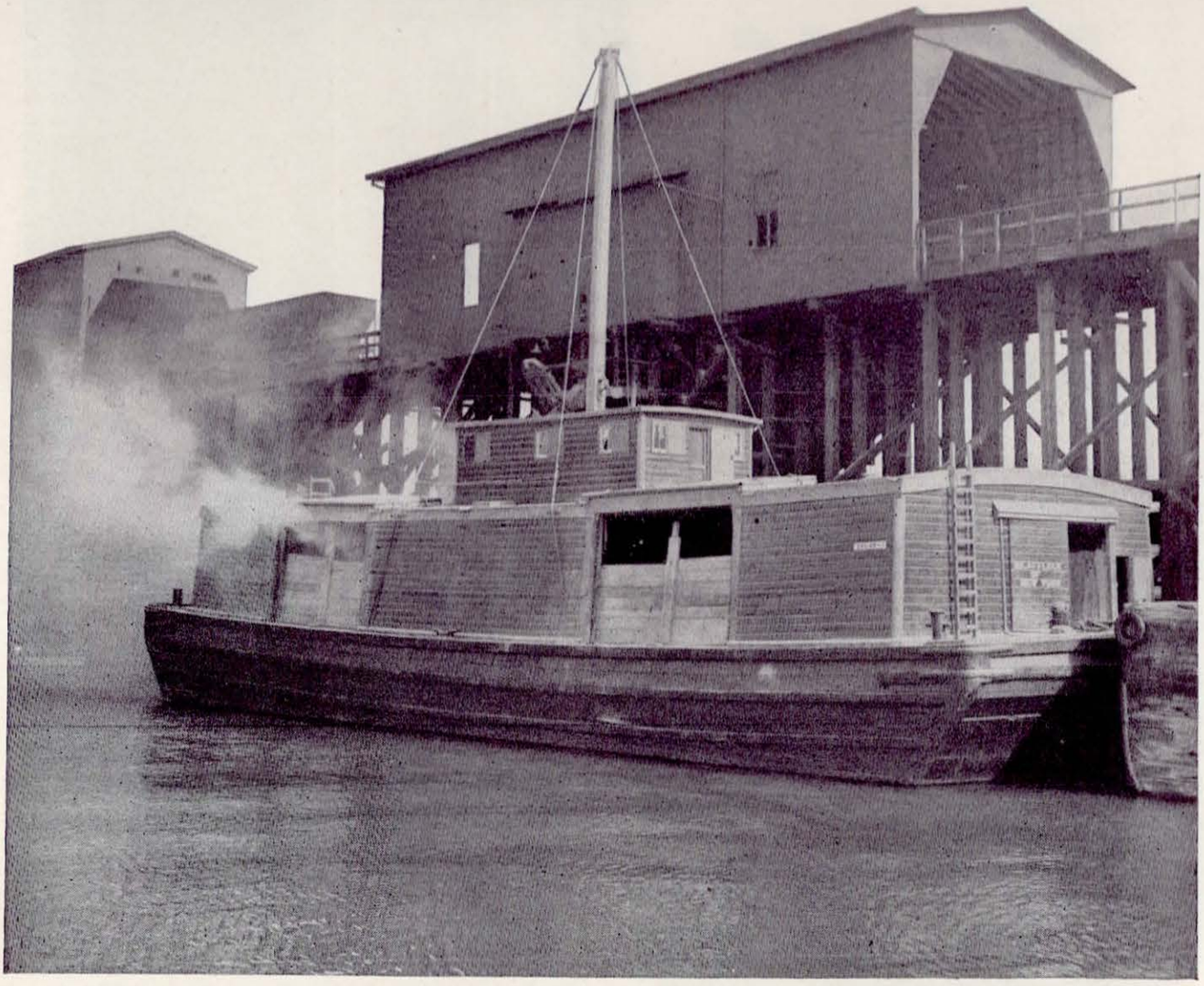
MISSOURI PACIFIC LINES

1851
A CENTURY
OF SERVICE
1951



SERVING THE WEST-SOUTHWEST EMPIRE

Low cost way to ship cement



From Lackawanna's gravity trestle at the Hoboken Terminal, bulk cement and other dry pulverized materials are transferred from covered hopper cars to barges for delivery anywhere in the New York area...efficiently and swiftly.

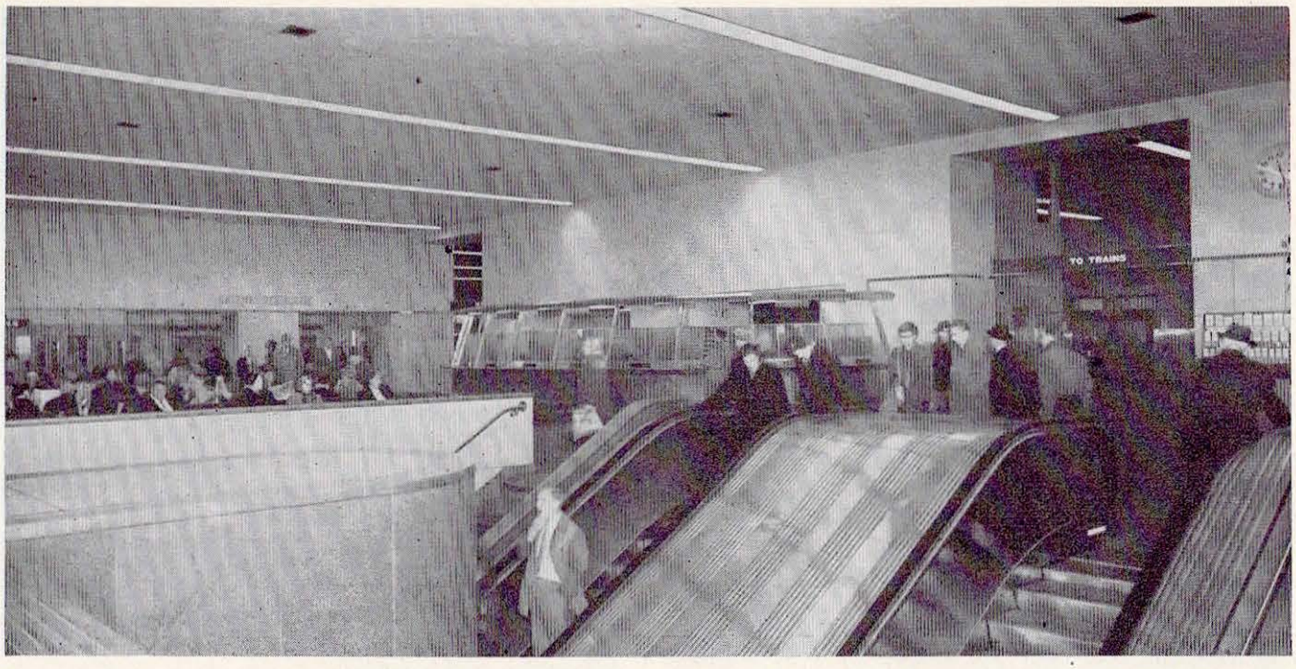
By means of conveying equipment easily available to any contractor, cement can be emptied from barges anywhere that a pipe-line can be run; under ground, under water, vertically, over long distances, and to any number of delivery points. In many instances storage and extra handling are eliminated... resulting in substantial savings for shippers who take advantage of these Lackawanna facilities.

Whether it's cement or other bulk freight, packaged goods or perishables, modern Lackawanna efficiency adds up to preferred handling for your shipments. That's why so many of the world's great shippers specify the Lackawanna Railroad... to or through New York.

Lackawanna Railroad

1851-1951

SHIPPERS WHO ARE IN THE KNOW, CHOOSE THE ROUTE OF PHOEBE SNOW



One important improvement made during the tenure of Revelle Brown was the modernization of the Reading Terminal at Philadelphia. The ticket office was completely rebuilt on the train floor and escalators were installed. Valuable street frontage was released for rental by the renovation. The train concourse was also modernized, and enclosed

(*Continued from page* 62)

working with shippers on matters of distribution and service. In 1922 he became a traffic representative, holding this position until 1925, when he became chief clerk in the office of the vice-president in charge of freight traffic. Here "special problems," especially with respect to waterborne freight, brought Mr. Fisher into the realm of rates, a complex subject which many find dull, but which fired the interest of this inquisitive young man.

Delved Into All Departments

Although his handling of these problems was often extra-curricular, expeditious disposal of them won for the new Reading chief, in 1925, the title of foreign freight agent. In 1928 Mr. Fisher was appointed assistant general freight agent, his first position in which rates were officially his assignment. In 1935 he became general freight agent. A year later, Mr. Fisher advanced to assistant freight traffic manager, holding that post until April, 1939, when he was promoted to freight traffic manager. On November 1, 1944, he was made general freight traffic manager. On September 1, 1945, Mr. Fisher was moved up to the Reading's top traffic post, being appointed traffic vice-president.

Throughout his affiliation with the traffic department, Mr. Fisher maintained an intense interest in the functions of the operating department, working hand in hand with those responsible for creating the service which constituted his principal sales tool. Perhaps related to his formal training as an engineer, Mr. Fisher's interest co-extended to all departments of the road, rounding him out for the position of executive vice-president, to which he was appointed on September 1, 1950. Those close to Mr. Fisher tell jokingly that "Joe's" interest in the railroad's overall operations came to the point of jeopardizing family relations; that it was not unusual for him to arrive Sunday afternoon—with Mrs. Fisher, his son Robert and daughter Barbara—at Rutherford yard, Port Reading or Newberry Junction for an informal inspection of operations and facilities.

The new Reading president never misses an opportunity to tell employees how important their contribution is to the success of the railroad. Whatever a man is doing, Mr. Fisher stresses, he should know he is aiming to satisfy the customers so that the railroad will have more business. Mr. Fisher, using over-simplification to put his story across, takes a car of ore as an example. "It looks like plain earth," he says, "but it is urgent material for the steel mill." It is manufactured into steel, he explains, and may be used to build or expand a factory or warehouse, from which still more freight is moved. This creates jobs, and demands for more goods.

Mr. Fisher is a student of distribution. He feels that delayed delivery often negates a sale and lessens total transportation requirements. He urges industry to consider methods of warehousing and distributing which will gain for them the advantage of ability to fill demands "when and where needed," and permit factory-to-warehouse transportation in large quantities at low costs. Shippers who have an opportunity to do business this way, he feels, not only do themselves a favor, but conduct their distribution in a manner which makes rail transportation most attractive.

Costs, Rates and Tariffs

The new Reading president is convinced that rates are approaching the point where further increases will endanger the railroads' ability to compete, in full measure, for the traffic available. Further increases will spur decentralization, he warns, resulting in shorter hauls more vulnerable to motor carrier competition. He thinks it technologically possible to cut costs and keep the railroads sound; the diesel, with its flexibility of assignment, is a principal tool already at hand. Modern signaling can increase the capacity of tracks and permit retirement of additional tracks in multiple-track territory,

HOW THE READING'S CUSTOMERS FEEL ABOUT THE ROAD'S NEW PRESIDENT

"We are 'tickled to death' that 'Joe' Fisher got the job. He came up the hard way and deserves the job, and will make an excellent president. Perhaps it would be a sound practice if railroads gave the job to a traffic man more often, particularly when one is available who knows both departments so well. After all, the object of operating the railroad is to handle traffic."

R. F. HOGAN, traffic manager
Warner Company, Philadelphia, Pa.

"I am the happiest man in the industry to see 'Joe' Fisher get this position. He is the fairest man in transportation. If you have a problem, he works it out with you—if you are right, he goes along, and if you are wrong, you learn why. Mr. Fisher is going to be a big asset to the transportation field. I know his fellow officers and the rank and file on the Reading feel the same way."

C. R. RITTER, traffic manager
Luria Brothers & Co., Philadelphia, Pa.

"Without taking anything away from the fine railroad presidents who have come up through the other departments, I want to say that I am happy to see another instance where a traffic man has been elected to the job. 'Joe' came up in great style as an intelligent and forceful executive. He has a world of knowledge as to how to merchandise *transportation, and as the head of the railroad, it should prove helpful not only to the shippers, but to the Reading Company employees and stockholders."*

C. H. BEARD, general traffic manager
Union Carbide & Carbon Co., New York

"I have known 'Joe' Fisher for many years and know of no one who is more highly esteemed, and deservedly so, by his many friends and associates. His ability, diligence, sincerity and personality have long marked him in my book as outstanding. His promotion to the presidency, even though it unfortunately is not the usual thing for a traffic man to be so recognized, came—in this case—as no surprise."

ROBERT W. MARSHALL, director, traffic department
E. I. du Pont de Nemours & Co.
Wilmington, Del.

reducing operating and maintenance costs while expediting movements.

There is great hope for the simplification of freight tariffs, the new president declares, "if the job is tackled *boldly*." Such a step is now being taken through the appointment by the railroad traffic executives of a committee of tariff experts who will set up a program and confer with representatives of the shipping public, Interstate Commerce Commission and the Association of American Railroads. Their recommendations will be considered and acted upon by the railroads and it is expected that definite beneficial results will be obtained.

Mr. Fisher considers the passenger deficit a special problem with the short-haul railroads like the Reading. Suburbanites, including regular riders as well as those who use the trains merely as a standby facility, expect excellent service and, by-and-large, it is afforded them. However, Mr. Fisher adds, "It is possibly the only item involved in their standard of living for which they resent paying even the cost—to say nothing of any return to the railroad to cover its investment and efforts. Where they will pay sharp increases, say for food or automobiles, with only an inward protest, moderate increases in railroad fares to partially relieve growing deficits are the subject of organized and vigorous protest to the sheltering regulatory bodies."

Revelle Brown Retires

Revelle W. Brown retires at the early age of 68, definitely in his prime. Mr. Brown takes pride in the fact that he is one of the first Reading officers to go out before 70 under a plan which he himself instituted. Mr. Brown feels that the earlier retirement age creates an incentive down the line by the knowledge it imparts to people in subordinate positions that they do not have to work at one job until they are too old for the job ahead. Additionally, it relieves a man of full-time duties at an age when he can still look forward to doing some of the things he wants to do.

Since 1948, the age of compulsory retirement of officers has been consecutively reduced by six months each year, so that in 1953 retirement will be mandatory at 65. Mr. Brown's chief joy has been in seeing others move ahead and his greatest satisfaction is in the many friendships he has made.

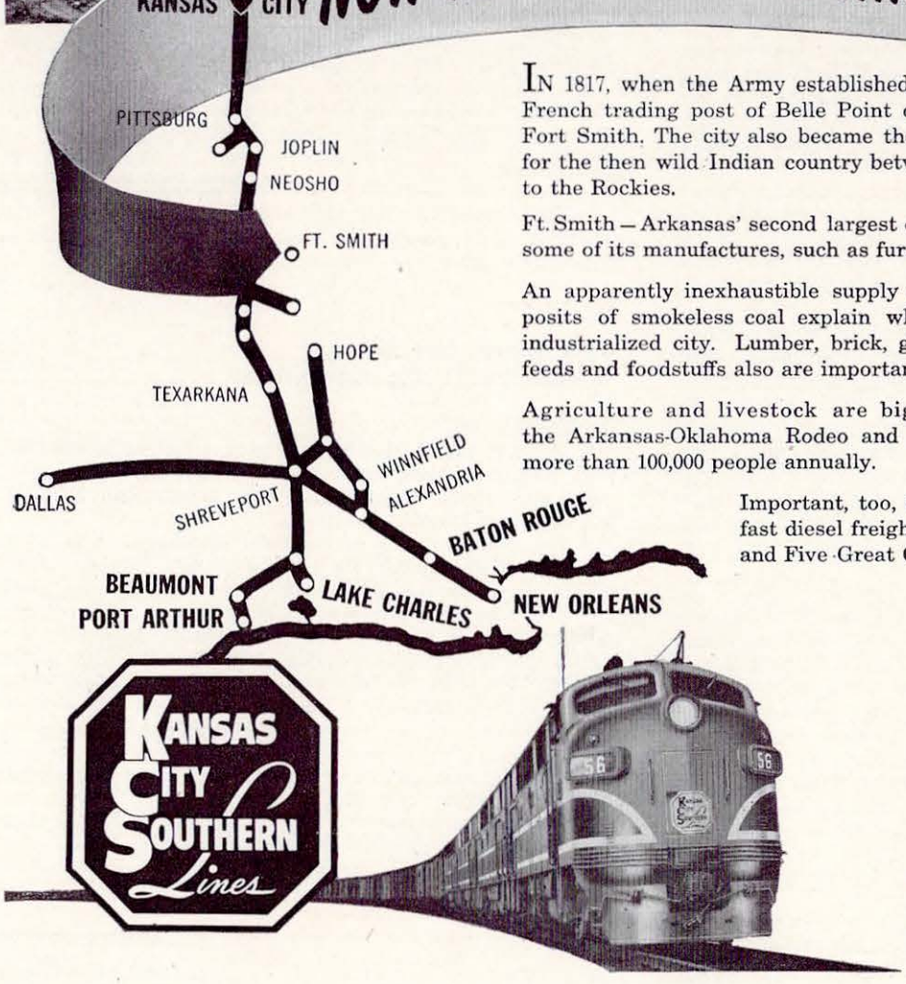
Mr. Brown will retain close ties with the Reading as a member of the board and chairman of the executive committee. He expects to keep busy as president of the Philadelphia chapter of the Boy Scouts, 16,000 strong, and to continue his activities in connection with the United Fund charities. He is now chairman of the Eastern Pennsylvania Enterprise Council of the Transportation Association of America, and will take over the general chairmanship of the association's Central Atlantic forum.

Mr. Brown insists that "all the glory should go to the new man," but is justifiably proud of his lively career. He was born at Carlyle, Ill., on August 5, 1883, and entered railroad service direct from the public schools in 1901 as a laborer on the Baltimore & Ohio. He served subsequently with the B. & O. as fireman and engineer. In 1910 he was promoted to air brake instructor, then to assistant road foreman of engines. After a few minor moves, he was appointed, in 1917, trainmaster at Wellston, Ohio, then at Toledo, where, in 1917, he became assistant superintendent. In 1919 he went to Connellsville, Pa., as superintendent, and later to Cumberland, Md. In 1926 he was made general superintendent of the Maryland district where his performance led to his appointment, in 1930, as general manager of the Central of New Jersey. A year later, Mr. Brown became vice-president and general manager of the Jersey Central, and, in 1935, vice-president of the Reading and the C. of N. J. In 1941, he was elected president of the Lehigh Valley. On July 1, 1944, Mr. Brown was elected president of the Reading.

A notable achievement during Mr. Brown's term as president has been the simplification of the Reading's corporate structure: 21 of 45 subsidiaries and related companies were merged or dissolved. In the seven years 1944 through 1950, gross expenditures for additions and betterments exceeded $4.1 million for road, and $25.2 million for equipment. Fixed charges were reduced from $7.4 million in 1944 to $5.8 million in 1950 even though, in the same period, total funded debt was increased slightly. The saving in fixed charges was accomplished largely through the elimination of mortgages and collateral trust bonds, and the substitution of equipment trust and conditional sales certificates at low rates to finance locomotives and cars which have permitted important economies in operations.

First With the French .... Then With the Army

NOW FT. SMITH Trades With the World!



IN 1817, when the Army established its Southwestern outpost at the French trading post of Belle Point on the Arkansas river, it became Fort Smith. The city also became the seat of Federal law enforcement for the then wild Indian country between Texas and Kansas, westward to the Rockies.

Ft. Smith – Arkansas' second largest city – still is a trading center, with some of its manufactures, such as furniture, in world-wide demand.

An apparently inexhaustible supply of natural gas and extensive deposits of smokeless coal explain why Ft. Smith is the state's most industrialized city. Lumber, brick, glass, paper and metal containers, feeds and foodstuffs also are important products.

Agriculture and livestock are big business in Ft. Smith, where the Arkansas-Oklahoma Rodeo and the Livestock Exposition attract more than 100,000 people annually.

Important, too, in Ft. Smith's trade picture is our fast diesel freight service to and from Kansas City and Five Great Gulf Ports.

J. M. Scott
Vice President—Traffic

Representing
KCS LINES at FT. SMITH
Eldon D. Pence, *General Agent*
T. O. Baker, *Local Agent*

FREIGHT HEADED SOUTH moves faster via KCS 77 – out of Kansas City at 8:40 nightly.

Communications . . .

Good and Bad Points in Passenger Service

La Crosse, Wis.

To the Editor:

Despite the new equipment, most fast passenger trains are rough-riding. If dynamic balancing of the wheels would help, this should certainly be done. Food service is not as good as it used to be, but that is true everywhere.

I think explanations of why service is as it is and why schedules are arranged as they are ought to be made to the public in the form of leaflets on the train. For example, a streamliner serving my city, since the 40-hour week, has reduced by one or two the number of waiters. This has lengthened the meal period. I believe the public would favor lengthening the meal period as against additional increases in meal costs, but they would like to know why the meal period was lengthened. Also, certain eastern territory trains leave Chicago before complementary western trains arrive. There probably is a good reason, but I think it would be helpful if the traveling public knew that reason.

It seems to me the railroad passenger business is assured of a future if it keeps in touch with the traveling public.

C. D. Gelatt
President,
Northern Engraving & Manufacturing Co.

"An Ear on a Tumor"

To the Editor:

In your editorial on managerial handicaps *(Railway Age,* July 23, 1951) you cite government regulation, complexity of restrictive union rules and socialized competition as factors which hamstring the railroad industry. True enough, but wouldn't a little introspection also be in order. Much of the railroads' troubles are inherent or are bred of stultifying habit.

A medical specialist recently said to a patient, "To me, you are just an ear on a tumor." The condition of the tumor, which was his term for the body, and the effect of its condition on the ear, was of no concern to him. Similarly, nearly everyone in the service of a railroad must be something of a specialist. He is in one department or another, and he is in competition with all other departments when it comes to making a showing or getting appropriations for what he wants to do. Specialization is intensified by the sharp divisions insisted upon by the crafts, and as a result, the creation of supervisory forces is made increasingly difficult. In the past, railroad management was highly neglectful of the supervisory forces it had. The situation for management is, of course, rendered more difficult by the fact that most railroads are spread over large territories and it is necessary to operate by remote control.

The net result is that few railroad men ever acquire an overall understanding of railroad operation until they are approaching retirement age. By that time, they are disinclined to stick their necks out in doing something which might result in their being fired. It is much more comfortable to stay inside the job and retire on a pension.

Management itself can scarcely be blamed for these circumstances. Nearly everyone who becomes a member of top brass, came up through some department, and he is inclined to favor the department with which he is most familiar. As a result, the other departments which do not have an aggressive spokesman, languish for want of attention that is bestowed on someone who may be less deserving.

The cure would seem to be some kind of an engineering coordinator, someone capable of comparing various activities abstractly, who could evaluate the relative efforts which should be given to different activities. Were he taken from the ranks, he would certainly offend someone and probably get himself fired. But, if he could be assured of his job by contract or perhaps be exchanged with a similar man from another road, he would function as a much needed general practitioner, and supply needed information about the tumor which feeds the ear.

George A. Colbert

[The editorial upon which Mr. Colbert comments discussed a large and inadequately recognized handicap which applies uniquely to the railroads. The difficulty of excessive departmental emphasis, to which Mr. Colbert diverts attention, is one which is encountered in every large industry. Few would question his diagnosis — but where has the novel theraphy he recommends been tried with success? Most competent books on management suggest practical ways of overcoming excessive departmental emphasis; and some railroads are actively adopting these methods. To us, they appear more persuasive than Mr. Colbert's prescription. We've never heard of a "coordinator" yet who ever succeeded in getting anthing coordinated.—Editor]

Our Thanks to Professor Miller

Pittsburgh 13, Pa.

To the Editor:

I think I need not tell you that I read the *Railway Age* from week to week with keen interest. You do an excellent job in gathering interesting material and in presenting it, as well. It is no small task to interest continuously as diverse a group as you have among the readers of the "Age." One of the things I particularly like is the almost invariable soundness of your judgment — measured by my standards, of course. While the "Age" is spokesman for the railroads, it maintains an independence infrequently found in a publication which serves a particular industry. There is frequent evidence, particularly in the editorials, of original thinking — thinking that "breaks ground" rather than being stereotyped. For your success, I congratulate you!

Sidney L. Miller,
Head, Dept. of Transportation
The University of Pittsburgh

[To such a letter our only reply must be that we shall strive hard to deserve the reputation Professor Miller so generously accords us.—Editor]

Says Speed, Not Rates, Is the Trucks' Big Advantage

Baton Rouge, La.

To the Editor:

I thought that I should call your attention to the fact that whereas freight rates probably influence trucking to some degree, the major reason why people ship by truck is because of speed.

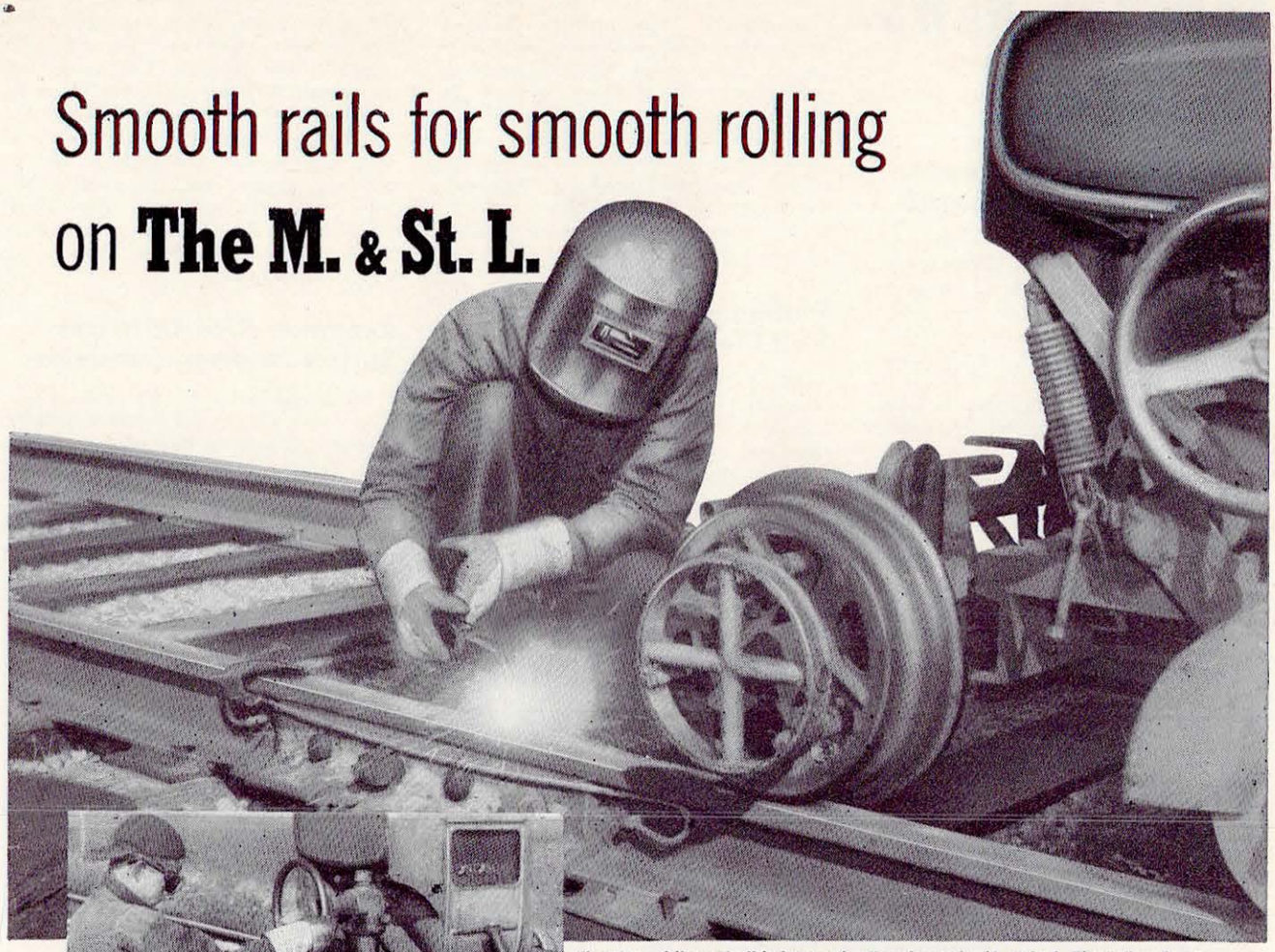
I was talking to one of the local merchants recently on the subject, and he told me about a certain shipment which was shipped by rail by mistake. He said that by truck it would have been delivered to his customer the next day, and by rail after ten days had not yet been delivered.

Our gravel plant is approximately 60 miles from Baton Rouge. By truck we get over-night delivery from Baton Rouge but via railroad, it takes from a week to ten days. Up at Walden, N. Y., where I have a manufacturing business, most of our customers specify truck delivery because the trucks usually get their shipments to them faster than they are received by rail.

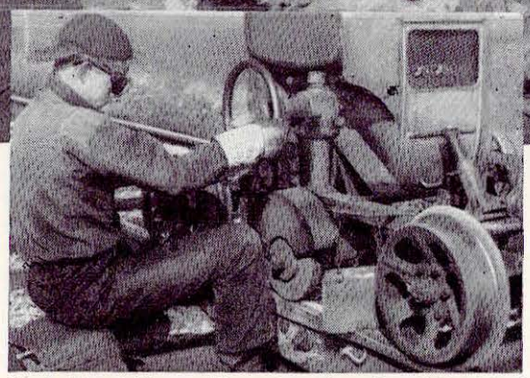
It would seem to me that the railroads should have their own pick-up and delivery trailers and/or containers. Furthermore, the railroads should develop some sort of a union l.c.l. station to facilitate quick transfer from one road to the other.

Paulsen Spence
President
Gulf Sand & Gravel Corp.

Smooth rails for smooth rolling on **The M. & St. L.**

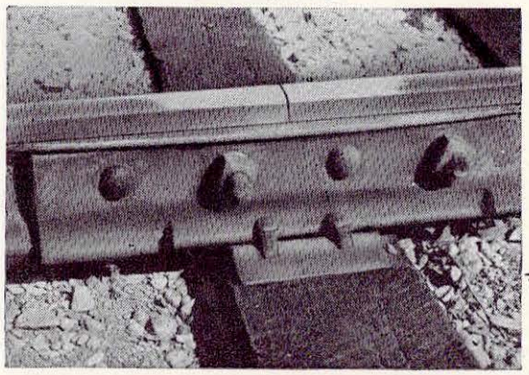


Electric welding rebuilds battered rail ends on the M. & St. L. The rail ends are first heated, then new steel added as shown above.



An electric grinding machine restores the rails to their original shape and smoothness. Experienced crews use mobile equipment for the entire operation.

Smooth rails for smooth rolling on the M. & St. L.—all accomplished without removing a rail from the track, even temporarily.



The rail ends on any track take terrific pounding from fast-rolling car and locomotive wheels. Rail joints, if neglected, become rough. The resulting jars and vibration can damage freight shipments.

Not so on the Minneapolis & St. Louis Railway! Rebuilding of battered rail ends by electric welding is part of its program of track maintenance to keep rails smooth and even. The work, along with renewal of ties and ballast, goes on constantly, except in the cold of winter.

Here's evidence again of how no detail is neglected that makes for *smooth rolling* of M. & St. L. fleets of modern cars and Diesel locomotives. On the M. & St. L., it's attention to *all* details that insures

Fast, Dependable Freight Service

The MINNEAPOLIS & ST. LOUIS Railway

111 East Franklin Avenue, Minneapolis 4, Minnesota

GENERAL NEWS

(Continued from page 41)

New "Railway Accounting Rules" Being Distributed

The latest edition of "Railway Accounting Rules," which is published by the Accounting Division, Association of American Railroads, is now being distributed, according to an announcement by Division Secretary E. R. Ford. The edition, known as the October 1, 1951 edition, will supersede on that date the presently-effective December 1, 1950, edition.

Mr. Ford's announcement said "substantial" changes make it "essential" that copies of the new edition be placed "in the hands of all officers and employees engaged in interline accounting work. The announcement also stated that, pursuant to the usual practice, one copy will be furnished without charge to each accounting officer who is a member of the Accounting Division.

Additional copies may be obtained by member roads and their employees for 75 cents each when ordered in quantities of 10 or more, and for $1 each when ordered in quantities of less than 10. Prices to non-member roads and others are double the foregoing. Orders should be placed with Mr. Ford, Transportation building, Washington 6, D. C., with remittances made payable to the A.A.R.

Pullman-Standard Plants Still Closed by Strike

The Butler, Pa., Bessemer, Ala., and Hammond, Ind., plants of the Pullman-Standard Car Manufacturing Company remained closed as of August 28, as federal conciliators began a series of meetings with the striking union (United Steelworker of America — C.I.O.) and representatives of the company at Chicago.

Another plant at Michigan City, Ind., has not been affected by the walkout and is continuing car production—but with a dwindling inventory of parts that are normally furnished by the Hammond plant. When the strikes began in July (*Railway Age*, July 30, page 43), the Michigan City plant had an estimated 60-day inventory of parts with which to continue production.

A company spokesman said that even with the federal conciliation service working on the case, there was little hope of an early settlement. The closed plants normally account for about two-thirds of Pullman-Standard's total freight car output.

Examiner Rice Criticizes State's Highway Subsidies

An examiner of the Interstate Commerce Commission has denounced state highway policies in Louisiana as being "very injurious" to railroads, while providing indirect subsidies "of material value" to truckers. He said there is "no intimation" of public need for subsidizing the truckers, and the net effect of such a policy is that motor carriers can maintain rates that take business away from the railroads.

Examiner Claude A. Rice, in a proposed report on intrastate rail rates in Louisiana, advised the commission that any increase in rail rates would merely divert more traffic to trucks. The railroads had asked the commission to overrule the Louisiana Public Service Commission by ordering increases in intrastate rates in line with the Ex Parte No. 168 interstate increases.

The effect of such increases would be to give more business to the trucks, Examiner Rice said. But then he unloaded on what makes this so.

"Evidence (by the Louisiana commission) indicates that the ability of motor carriers to take freight traffic from the railroads by reason of lower rates has been and is due largely or entirely to inequality of treatment accorded rail and motor carriers by the Louisiana state authorities," he declared.

"The petitioning railroads provide and maintain at their own expense, and pay taxes on, their respective rights of way and trackage. The competing motor carriers do not operate on either that basis or a comparable basis. It is not shown that they have any funds invested in the public highways over which they travel, any fixed interest charges to pay on such an investment, that they pay property taxes to the state based on the value of those roadways, or that they pay more than a minor fraction of the annual cost of highway construction, reconstruction, and maintenance."

The examiner then pointed out that the cost of constructing and maintaining highways in Louisiana in 1950 was $10,314,095. This exceeded by 54 per cent the gross intrastate freight revenue reported by motor carriers operating on the state's public highways. Their entire gross was $6,676,122.

Examiner Rice also noted that about $7,000,000 a year is contributed to

(Continued on page 77)

Centennial Report
the financial story of the first hundred years
ILLINOIS CENTRAL RAILROAD
For 100 Years—the Main Line of Mid-America

FEW CORPORATIONS ever have occasion to provide their stockholders with any sort of financial or operating summary beyond their regular annual reports. But the Illinois Central, now entering its second century of service, has developed a "Centennial Report"—a 52-page brochure chronicling income, expense, traffic, property, equipment, debt, public and employee relations, and executive personnel since the road's charter was first signed by Illinois Governor Augustus C. French on February 10, 1851.

Profusely illustrated, the "Centennial Report" is, in effect, a short history of the I.C.'s first 100 years. But it is also a corporate report in the traditional sense, as it contains a 100-year record of the road's income, its traffic and its comparative balance sheets, by decades. It tells, for instance, that in the past 100 years, the I.C. has earned total operating revenue of $7,328,000,000, from which operating expenses have taken $5,433,000,000, and that the net income for the century was $611 million. All major departments of the railroad had a hand in writing this unique report, which was prepared under the direction of Vice-President F. E. Martin. It is printed in blue, gold and brown. Copies have been distributed to all I.C. stockholders, and to a large number of schools, newspapers, and local and financial libraries throughout the country. Persons interested in obtaining a copy may do so by writing to A. L. Church, secretary, Illinois Central, 135 East 11th place, Chicago

On Tap...

Vast Stands of Southern Pine Contribute Heavily to the NAVAL STORES INDUSTRY

FROM the pine forests of the southeast flows the life blood of the naval stores industry. Rosin and distilled turpentine provide the basic ingredients for many diversified products.

The continuous movement of rosin and turpentine from the forests — to the processors — to the markets is an important transportation responsibility performed by *Coast Line.*

ATLANTIC
COAST LINE
RAILROAD

Looking for expedited through service?

Route your freight via The Milwaukee Road's

TERRE HAUTE DIVISION

Shippers *all over America* expedite freight movement by this routing.

The Terre Haute division via Bensenville connects all points north, northwest and west of Milwaukee, and west of Chicago with lines to and from the South and East.

Your Milwaukee Road representative can tell you how you can benefit from this through freight service, or write to

H. S. ZANE
Freight Traffic Manager
Chicago, Illinois

THE MILWAUKEE ROAD

The map tells the story!

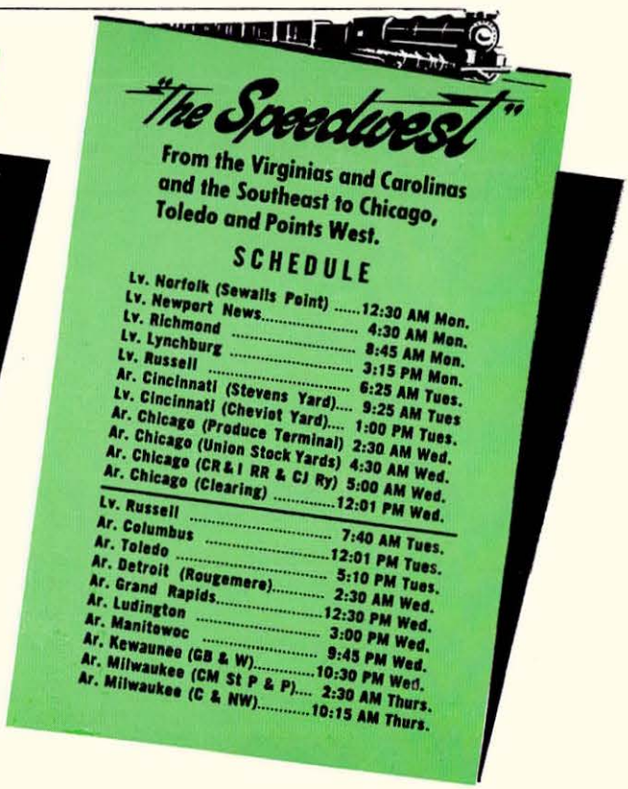
Let C & O cut Distribution Time, Mr. Shipper!

C AND O

Your prime problem, Mr. Shipper, is getting your freight to its destination as quickly and economically as possible. Our job is to see it's done that way. The Chesapeake and Ohio's two all-merchandise speedsters, "The Speedwest" and "The Expediter," can do it. "The Speedwest" operates from Norfolk-Newport News to Chicago, Toledo, and connects with the Pere Marquette District trains for Michigan and the Northwest via the car ferry service. "The Expediter" in the opposite direction, speeds freight from the Northwest to the Virginias, Carolinas and the Southeast.

So whether your freight is eastbound or westbound, you're bound to save a day on the way when you let it go C & O.

The EXPEDITER
From the Northwest—Chicago, Detroit, Toledo, Cleveland to the Virginias, Carolinas and the Southeast.
SCHEDULE
Lv. Milwaukee (C & NW)..... 5:45 PM Mon.
Lv. Milwaukee (CM St P & P).... 8:15 PM Mon.
Lv. Kewaunee (GB & W)..... 11:55 PM Mon.
Lv. Manitowoc ..... 11:55 PM Mon.
Lv. Ludington ..... 8:30 AM Tues.
Lv. Grand Rapids ..... 4:30 AM Tues.
Lv. Detroit (Rougemere)..... 8:15 PM Tues.
Lv. Toledo ..... 8:00 AM Wed.
Lv. Columbus ..... 2:00 PM Wed.
Ar. Russell ..... 5:00 PM Wed.
Lv. Chicago (Clearing) ..... 5:00 PM Tues.
Lv. Chicago (Union Stock Yards) 7:00 PM Tues.
Lv. Chicago (Burnham) ..... 9:45 PM Tues.
Ar. Cincinnati (Cheviot Yard)... 8:05 AM Wed.
Lv. Cincinnati (Stevens Yard)... 3:15 PM Wed.
Ar. Russell ..... 6:15 PM Wed.
Ar. Lynchburg ..... 8:55 AM Thurs.
Ar. Richmond ..... 2:30 PM Thurs.
Ar. Newport News..... 6:30 PM Thurs.
Ar. Norfolk (Sewalls Point)..... 11:30 PM Thurs


"The Speedwest"
From the Virginias and Carolinas and the Southeast to Chicago, Toledo and Points West.
SCHEDULE
Lv. Norfolk (Sewalls Point) .....12:30 AM Mon.
Lv. Newport News..... 4:30 AM Mon.
Lv. Richmond ..... 8:45 AM Mon.
Lv. Lynchburg ..... 3:15 PM Mon.
Lv. Russell ..... 6:25 AM Tues.
Ar. Cincinnati (Stevens Yard)... 9:25 AM Tues
Lv. Cincinnati (Cheviot Yard).... 1:00 PM Tues.
Ar. Chicago (Produce Terminal) 2:30 AM Wed.
Ar. Chicago (Union Stock Yards) 4:30 AM Wed.
Ar. Chicago (CR & I RR & CJ Ry) 5:00 AM Wed.
Ar. Chicago (Clearing) .....12:01 PM Wed.
Lv. Russell ..... 7:40 AM Tues.
Ar. Columbus ..... 12:01 PM Tues.
Ar. Toledo ..... 5:10 PM Tues.
Ar. Detroit (Rougemere)..... 2:30 AM Wed.
Ar. Grand Rapids..... 12:30 PM Wed.
Ar. Ludington ..... 3:00 PM Wed.
Ar. Manitowoc ..... 9:45 PM Wed.
Ar. Kewaunee (GB & W)..... 10:30 PM Wed.
Ar. Milwaukee (CM St P & P).... 2:30 AM Thurs.
Ar. Milwaukee (C & NW)..... 10:15 AM Thurs.

THE CHESSIE ROUTE FOR *FAST FREIGHT*

CHESAPEAKE AND OHIO RAILWAY

got a TARIFF *gripe?*

Got a gripe about complex freight tariffs? Your ideas for tariff simplification are WANTED NOW by the organization set up by the railroads to seek a solution to this problem. Here is the chance you've wanted to get it off your chest and help us find the answer. All suggestions will be cheerfully received and carefully considered. Send them to:

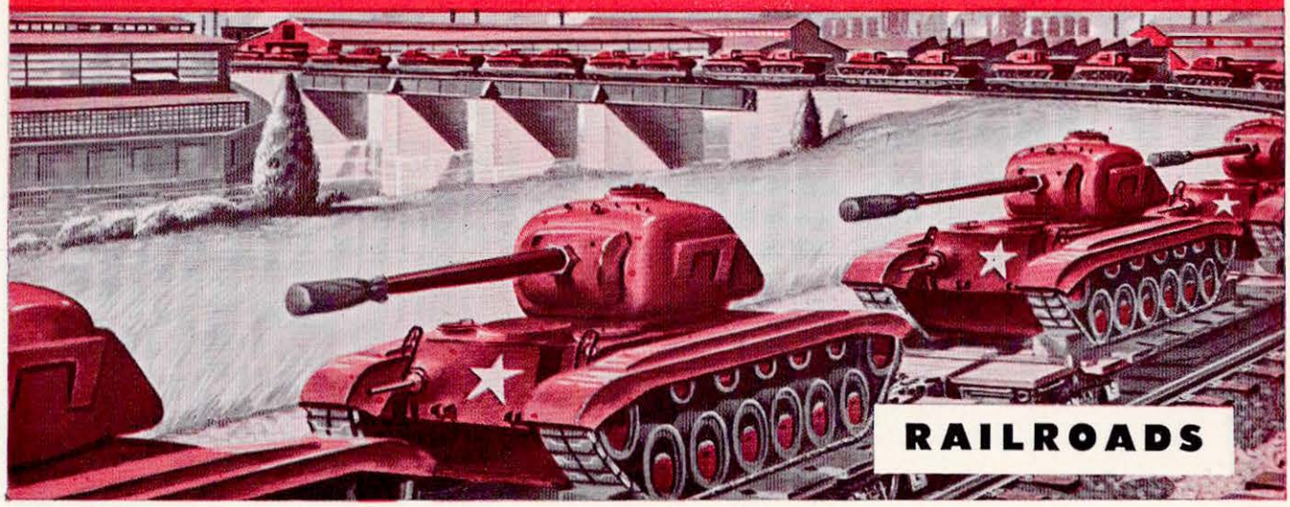
RAILROADS' TARIFF RESEARCH GROUP

Chas. S. Baxter, *Chairman*
Transportation Bldg.,
Washington, D. C.

Fred Carpi
Chairman, Railroads'
Administrative Committee

John W. Peters
Chairman, Cooperating
Committee, National
Industrial Traffic League

PARTNERS IN PREPAREDNESS

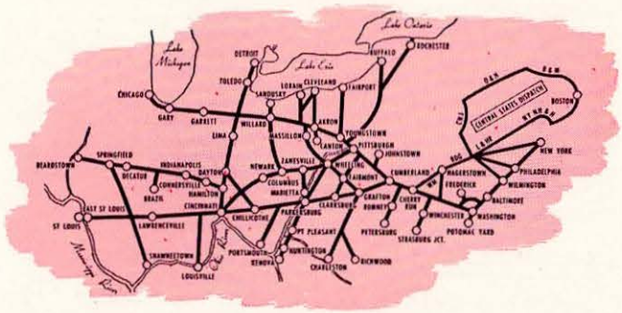


NEW MIGHT FOR THE *Muscles of America*

The strength of our country is built on steel—and on the industry that produces it. Right now, that industry is in the forefront of our preparedness effort—devoting a large share of its vast capacity to turning out the varied materials so vital for defense.

We of the Baltimore & Ohio fully appreciate the mighty accomplishments of the steel industry. For we, too, have had to gird ourselves for greater effort—to call forth all our railroading skill—to make our plant and equipment function at utmost effectiveness.

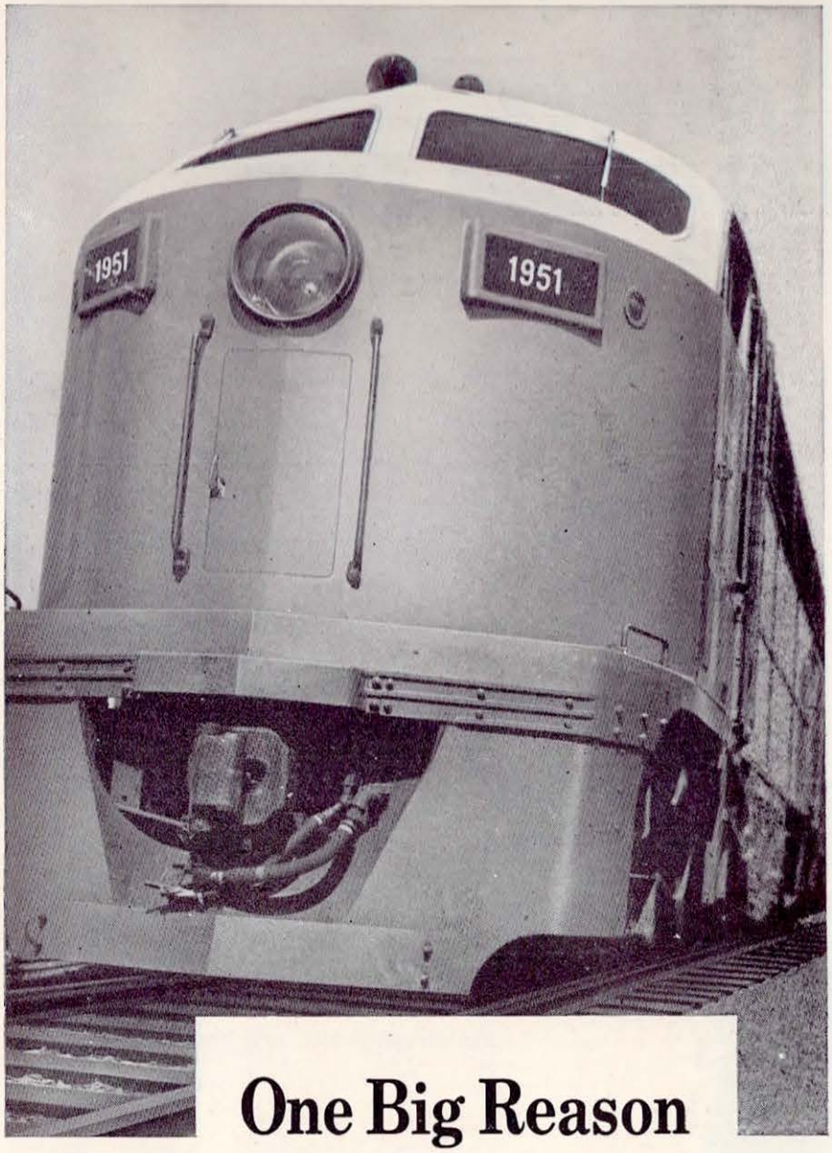
Hour after hour, in an ever-increasing stream, the products of roaring steel mills speed over our railroad to the defense lines of the nation. We are proud to join the other railroads in again demonstrating our efficiency—*and indispensability*—in meeting the Nation's needs.



LINKING 13 GREAT STATES WITH THE NATION
B&O

BALTIMORE & OHIO RAILROAD

Constantly *doing things*—better!



One Big Reason

why Americans produce more and live better than any other people on earth: This nation has a system of railroads that moves more tons of freight more miles, at a lower average charge, than any other common carrier transportation system in the world.

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Association of American Railroads

WASHINGTON 6, D. C.

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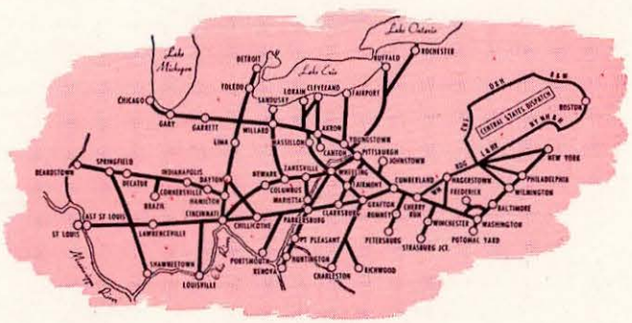
NEW MIGHT FOR THE *Muscles of America*

The strength of our country is built on steel—and on the industry that produces it. Right now, that industry is in the forefront of our preparedness effort—devoting a large share of its vast capacity to turning out the varied materials so vital for defense.

We of the Baltimore & Ohio fully appreciate the mighty accomplishments of the steel industry. For we, too, have had to gird ourselves for greater effort—to call forth all our railroading skill—to make our plant and equipment function at utmost effectiveness.

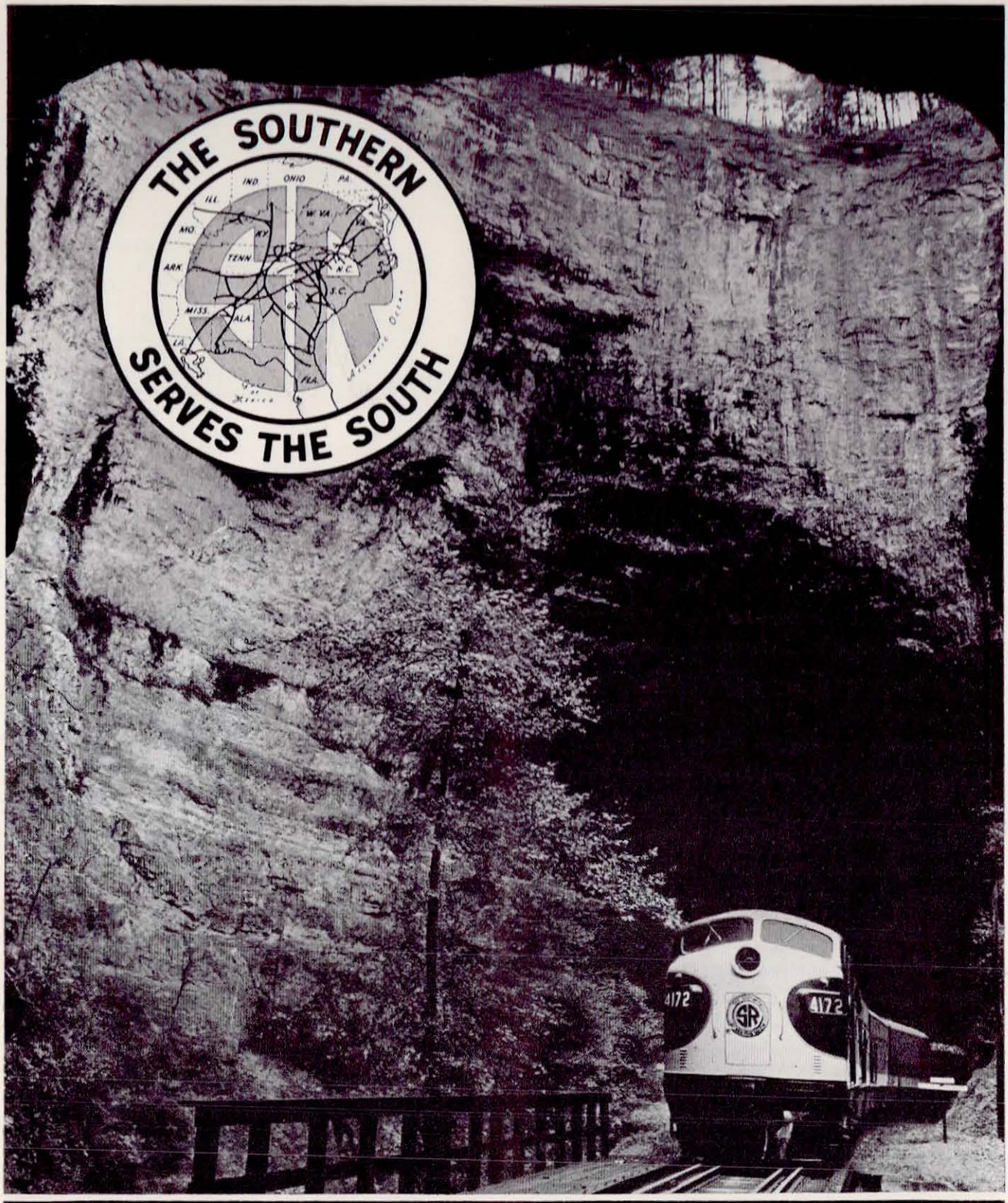
Hour after hour, in an ever-increasing stream, the products of roaring steel mills speed over our railroad to the defense lines of the nation. We are proud to join the other railroads in again demonstrating our efficiency—*and indispensability*—in meeting the Nation's needs.



LINKING 13 GREAT STATES WITH THE NATION
B&O

BALTIMORE & OHIO RAILROAD

Constantly *doing things*—better!



BOTH ARE "NATURALS"! . . . Like unique Natural Tunnel on our railway in Virginia, the Southern Railway System is a "natural" too . . . for efficient, dependable transportation service. Our lines serve every state, except West Virginia, south of the Potomac and east of the Ohio and Mississippi Rivers. To, from and within this area, you can ship with confidence via **SOUTHERN RAILWAY SYSTEM.**

(Continued from page 70)

Louisiana highway construction by the federal government, while other highway funds come from automobile licenses, gasoline taxes and other state taxes.

"There is no showing that any substantial part of the highway fund is paid by motor carriers of freight for hire," he concluded.

This investigation of rail rates in Louisiana was instituted in March at the request of 38 railroads. The roads claimed that failure of the Louisiana commission to authorize Ex Parte 168 increases on all commodities constituted discrimination against interstate commerce and undue preference for intrastate traffic. Seven commodities were involved, and the railroads estimated they were being deprived of $400,000 in annual revenue by failure of the state commission to approve increases.

Rock Island Seeks to Cut 14 Suburban Trains

The Rock Island has asked the Illinois Commerce Commission for permission to discontinue five Chicago-Blue Island and Chicago-Joliet suburban trains and to consolidate 18 additional trains into "compromise" schedules between those points.

The road told the commission that loss of revenues from mail contracts which the post office recently awarded to truckers and a general decline in suburban patronage (from over 11 million in 1946 to about 8.5 million in 1950) have increased operating losses, which have reached $1 million a year. Prior to the awarding of mail contracts to highway carriers, the Rock Island carried the largest share of mail between Chicago and Joliet (population, 52,000). In the petition, no estimate was made of revenues lost to truck haulage of mail. The petition did state, however, that discontinuance of the 14 trains would "substantially" reduce losses incurred by suburban operations.

Car Surpluses and Shortages

Average daily freight car surpluses and shortages for the week ending August 25 were announced by the Association of American Railroads on August 30 as follows:

	Surplus	Shortage
Plain Box	0	7,125
Auto Box	98	82
Total Box	98	7,207
Gondola	0	5,035
Hopper	0	4,340
Covered Hopper	0	80
Stock	901	108
Flat	6	1,063
Refrigerator	3,138	0
Other	211	19
	4,354	17,852

TWENTY-FIVE of these 70-ton, all-steel hopper cars have been leased to the Mathieson Chemical Corporation by Shippers' Car Line Corporation, a subsidiary of the American Car & Foundry Co. The cars were built at ACF's Berwick, Pa., plant. They weigh 50,800 lb. and have a load-limit capacity of 159,200 lb. The trucks are A.S.F. A-3 Ride Control with 2½-inch springs

Old Cast Iron Car Wheels Will Help Make New Ones

Cast iron car wheels which are scrapped each year—amounting to about 550,000 tons—will henceforth be used only in the production of new cast iron wheels, according to a recent order issued by the National Production Authority.

About 130,000 cast iron car wheels are needed each month for maintenance and repair, N.P.A. announced. It said this means a monthly requirement of about 46,000 tons of cast iron to keep freight cars in repair.

The new order provides that no person shall deliver or accept delivery of more than 10 tons of used cast iron car wheels in any one month, except as authorized by N.P.A. Producers of new cast iron wheels must certify in purchasing used wheels that the metal will go into the production of new freight car wheels.

I.C.C. Permits Round-Trip Fare Increase in East

Small increases in round-trip passenger fares have become effective in Eastern territory, following refusal of the Interstate Commerce Commission to suspend railroad tariffs placing the increases in effect.

The higher round-trip fares became effective within the territory August 20. Other tariffs, reflecting changes in inter-territorial fares as a result of the Eastern increase, became effective up through September 1.

Permission to file tariffs increasing round-trip fares in the East was granted 32 railroads in mid-July *(Railway Age*, July 23, page 52). The roads proposed that round-trip coach fares be made subject to a maximum reduction of 15 per cent below double the one-way fare, and that round-trip first-class fares be made subject to a maximum reduction of 5 per cent.

The Office of Price Stabilization was among those opposing the railroads. O.P.S. said the proposal "may be inflationary in effect," and asked the commission to suspend the tariffs and hold public hearings.

I. F. Lyons Killed In Plane Crash

Irving F. Lyons, who retired last fall as president of the National Industrial Traffic League, was among the 50 persons killed on August 24 in the crash of a United Air Lines plane near Oakland, Cal.

Mr. Lyons, who was 58 years old, handled legal work for the California Packing Corporation and the Canners' League of California. He represented vegetable and fruit processors in that state at rate hearings before the Interstate Commerce Commission. Before joining California Packing 37 years ago, Mr. Lyons had worked for the Southern Pacific.

New L.C.L. Interchange Set-up for St. Louis

Under the terms of a new contract which became effective on September 1, Ben Gutman Truck Service, Inc., of St. Louis began handling all l.c.l. interchange between 18 eastern and western railroads in the St. Louis area. This traffic was formerly handled by Colum-

(Continued on page 80)

Famous Routes of History

Through the Southeast with De Soto

Hernando De Soto landed in Florida in 1539 and took three years to explore routes in the Southeast. But you'll have no exploration problems when you specify SEABOARD routing.

Your Modern Route

to and from

The Southeast—

Seaboard knows the Southeast—and your specific problems in shipping to and from this progressive region. Personalized attention to your instructions is a feature of Seaboard service.

SEABOARD AIR LINE RAILROAD "VIA S. A. L."

Your nearest Seaboard Freight Traffic Representative will cheerfully furnish information upon request.

SEABOARD AIR LINE RAILROAD

THE ROUTE OF COURTEOUS SERVICE

BACK IN UNIFORM

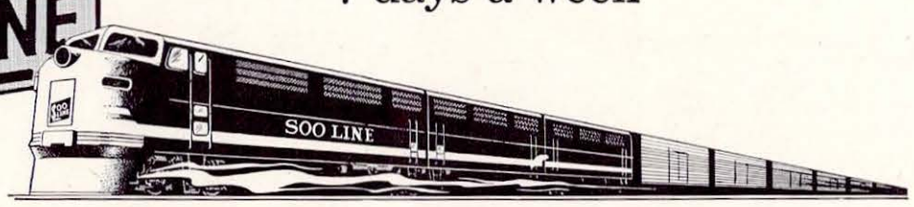
Guns for troops or toys for children, the Soo Line stands ready to roll 'em. Whatever you make, or may be called upon to make, the Soo Line will deliver—from Michigan to Montana, from Chicago to Vancouver—everywhere Soo Line Land.

Supplying the freight space is the Soo Line's ever-lengthening string of modern rolling stock; packing the power to move it fast and sure is an expanding fleet of powerful Diesel-electric locomotives. Providing the know how are trained-to-the-minute Soo Line freight handling teams.

To get your shipments to the right spot at the right time, *specify Soo Line*—to and thru Canada and the 7-State Soo Line Land.

SOO LINE

—your working partner
7 days a week



(Continued from page 77)
bia Terminals, Inc., which has elected to enter the field of common carrier trucking.

Arthur K. Atkinson, president of the Wabash, represented the 18 rail carriers during the negotiations. The contract is expected to remain in effect for six years, although some phases of it may be subject to renegotiation at an earlier date under specified conditions. The 18 railroads include all members of the Terminal Railroad Association of St. Louis (though each acted individually and not through the association), plus the Illinois Terminal, the Litchfield & Madison and the Southern.

To carry out the service, the Gutman organization has purchased some 300 new trailers at a reported cost of more than $1 million.

11-Year Track Program On N.P. Nears Completion

The Northern Pacific's $11.2-million main-line track relocation program, begun in 1940, neared completion last week with the opening of a five-mile section of new line in eastern Montana. To date the program has resulted in elimination of 123 curves and reduction of 189 more. Almost the entire main line from St. Paul to Seattle has been rock ballasted and equipped with heavier rail, and 109 miles of track have been relocated.

The new line in Montana is located between Glendive and Wibaux. At a cost of about $400,000, 12 heavy curves were reduced to two light curves, thereby permitting train operation up to 75 m.p.h. where 40 m.p.h. had previously been the top permissible speed.

Ten miles of welded rail in continuous lengths are currently being laid between Big Timber and Greycliff. This is the first time that the N.P. has installed welded rail at locations other than in tunnels. This work will probably be completed about October 1.

A grading contract has been let for a line change at the east end of the Missouri River bridge near Bismarck, N. D., which will reduce two curves and stabilize a slide area. Approximately 3,000 feet of track there will be relocated. The James Construction Company, St. Paul, and Haagenson & Tranby, McIntosh, Minn., have a contract covering 710,000 cu. yd. excavation. It has been estimated that the entire project—scheduled for completion early next winter—will cost $350,000.

1951's 1st-Quarter Loading Estimate Was 3.5% Low

The 13 Regional Shippers Advisory Boards underestimated carloadings for the first quarter of 1951 by 3.5 per cent, according to the latest comparison of forecasts with actual loadings. Chairman A. H. Gass of the Car Service Division of the Association of American Railroads, issued the comparison

It showed underestimates by 11 boards and and overestimates by the two others. By commodity groups there were 23 underestimates and nine overestimates. The range was from an underestimate of 45.7 per cent in the case of hay, straw and alfalfa to an overestimate of 18.9 per cent in the case of potatoes.

In addition to that on hay, straw and alfalfa, there were underestimates of more than 10 per cent for 12 other commodity groups. Only two of the overestimates, including that on potatoes, were more than 10 per cent off. The other was an overestimate of 10.1 per cent on fertilizers, all kinds.

COMPARISON: ESTIMATED NATIONAL FORECAST, REGIONAL SHIPPERS ADVISORY BOARDS, WITH ACTUAL CARLOADINGS, FIRST QUARTER 1951

Board	Carloadings First Quarter 1951 Estimated	Actual	Percentage of Accuracy Over Est'd.	Under Est'd.
Central Western	269,337	285,478		6.0
Pacific Coast	319,436	339,956		6.4
Pacific Northwest	208,813	220,162		5.4
Great Lakes	449,826	472,257		5.0
Ohio Valley	942,699	966,671		2.6
Mid-West	835,912	837,204		0.2
Northwest	241,180	245,304		1.7
Trans-Mo-Kansas	339,141	368,513		8.7
Southeast	931,580	1,037,281		11.3
Southwest	484,777	512,180		5.7
New England	138,371	133,465	3.5	
Atlantic States	777,208	785,333		1.0
Allegheny	988,639	967,157	2.2	
Totals	6,926,919	7,170,961		3.5%

National Malleable to Build New Rail Lab

The National Malleable & Steel Castings Co. will build a new physical testing laboratory for railway engineering development work, at Cleveland, at a cost of $750,000. Kenneth L. Selby, chief engineer of the railway division, will direct the activities of the laboratory.

The building and test tracks will occupy approximately five acres of land acquired for this purpose and the main laboratory building, to be located on Woodhill road and Woodland avenue adjacent to the company's Cleveland works, will have about 14,000 sq. ft. of space, with completely independent service facilities.

Amortization Certificates Go To Twelve More Roads

Certificates of necessity authorizing accelerated amortization of facilities for tax purposes were awarded to 12 railroads during the period of August 3-17, according to announcements by the Defense Production Authority. The certificates were issued by D.P.A. upon recommendation by the Defense Transport Administration.

This is the last group of certificates to be issued prior to the 60-day moratorium recently ordered by Defense Mobilizer Charles E. Wilson. The moratorium became effective August 18. Certificates may be issued after that date, but only in "urgent" cases. (*Railway Age*, August 20, page 60).

Railroads receiving certificates in the final group, together with amounts involved, are listed below. The percentage figure shows in each case the proportion that can be written off in five years.

Bessemer & Lake Erie, $4,400,000 (for hopper cars), 80 per cent.
Chicago, Indianapolis & Louisville, $627,500, 80 per cent.
Chicago & North Western, $7,481,384, 65 per cent.
Elgin, Joliet & Eastern, $6,965,000, 80 per cent.
Great Northern, $669,500, 80 per cent.
Illinois Central, $8,160,124, 65 per cent.
International-Great Northern, $2,432,000, 80 per cent.
Louisville & Nashville, $5,021,620, 80 per cent.
Missouri Pacific, $327,560, 80 per cent.
St. Louis, Brownsville & Mexico, $2,432,000, 80 per cent.
Union Pacific, $5,406,820, 65 per cent.
Western Railway of Alabama, $270,603, 80 per cent.

Military Packaging Course Established at Toledo

A joint military packaging course has been established by the Department of the Army at Rossford Ordnance Depot, Toledo, Ohio, to train Army, Navy, Air Force and Marine Corps personnel and personnel from industry at the foreman or supervisory level in basic methods of military preservation, packaging, packing and marking. The course is a continuing one, with classes of two weeks duration starting each week.

Applications from firms interested in having representatives attend the course should be directed to the Officer-in-Charge, Joint Military Packaging Course, Rossford Ordnance Depot, Toledo. Civilian firms must furnish at least one of their current military contract numbers and a brief description of material or equipment being supplied under contract.

If training needs increase, establishment of additional courses at other locations will be considered.

EQUIPMENT AND SUPPLIES

Domestic Equipment Orders Reported in August

Domestic orders for 130 diesel-electric locomotive units and 1,627 freight-train cars were reported in *Railway Age* in August. Estimated cost of the locomotive units is $21,600,000 and of the freight-train cars $10,913,000. An accompanying table lists the orders in detail.

During the first eight months of 1951 *Railway Age* has reported domestic orders for 1,696 diesel-electric locomotive units and six steam locomotives costing an estimated $273,214,777; 63,535 freight-train cars costing an

AN IMPRESSIVE RECORD

THE PROMINENT CONCERNS WHICH USE AND RECOMMEND MONON FAST-FREIGHT SERVICE TODAY READ LIKE A "WHO'S WHO" OF INDUSTRY

Warren W. Brown
VICE-PRESIDENT

Regular customers are the food upon which a business lives and grows. The railroad business is no exception.

Since its reorganization and complete modernization, five years ago, the number and character of concerns now using Monon Fast Freight service regularly, has increased steadily.

These Monon customers—including many prominent concerns known the nation over—are your assurance that Monon fast freight service is modern and dependable.

Monon solicits your next shipment. Whether it is a crate or a carload it will receive Monon service with a *plus*.

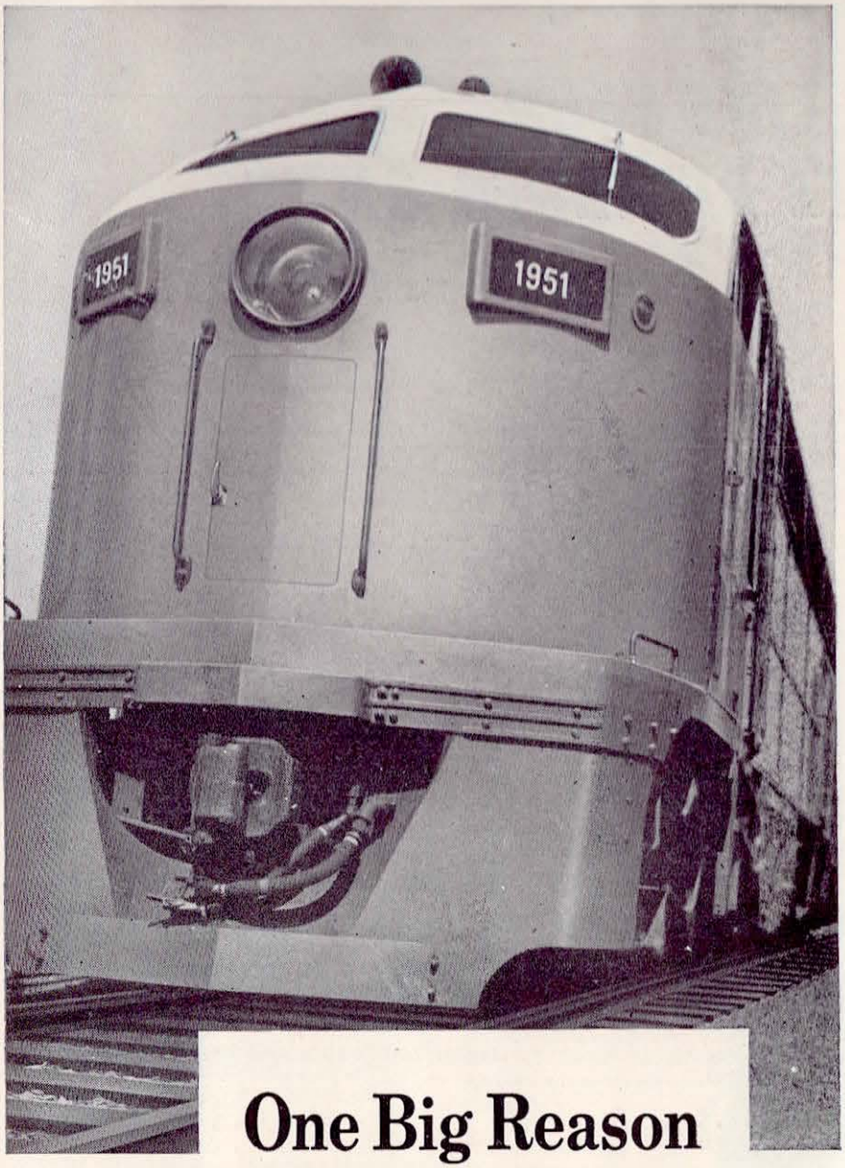
22 Monon Agencies serve the nation

There are 22 on-line and off-line agencies serving shippers across the nation. Why not contact the one nearest you?

MONON

THE HOOSIER LINE

CHICAGO, INDIANAPOLIS AND LOUISVILLE RAILWAY COMPANY



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CHICAGO, INDIANAPOLIS AND LOUISVILLE RAILWAY COMPANY

Locomotives

Purchaser	No.	Type	Issue Reported	Builder
C. & E.I.	4	1,500-hp. Gen. Purpose	Aug. 6	Electro-Motive
M.P.	18	2,250-hp. Passenger	Aug. 13	Electro-Motive
	55	1,500-hp. Rd.-Sw.	Aug. 13	Electro-Motive
	40	1,500-hp. Freight	Aug. 13	American-G.E.
	13	1,000-hp. Switching	Aug. 13	Baldwin-Lima-Hamilton

Freight Cars

A.T. & S.F.	150	70-ton Gondola	Aug. 6	R.R. Shops
D. & R.G.W.	25	70-ton Cov. Hopper	Aug. 20	Pullman-Standard
D.T. & I.	100	70-ton Cov. Hopper	Aug. 20	Amer. Car & Fdy.
G.T.W.	350	50-ton Box	Aug. 20	Amer. Car & Fdy.
	250	70-ton Trip. Hopper	Aug. 20	Amer. Car & Fdy.
G.M. & O.	250	95-ton Hopper	Aug. 27	Pullman-Standard
M.D. & S.	2	Caboose	Aug. 20	Intl. Ry. Car
Southern	300	70-ton Hopper	Aug. 6	Pullman-Standard
Tenn. Central	200	50-ton Hopper	Aug. 20	Pullman-Standard

estimated $365,913,000; and 122 passenger-train cars costing an estimated $17,485,000.

FREIGHT CARS

Pennsylvania's Freight-Car Program Is 90% Complete

The Pennsylvania's program to build new and rehabilitate 60,000 freight cars has been 90 per cent completed. About 54,000 new and rehabilitated cars, 27 per cent of the road's total, have been placed in service. New gondola, box and flat cars, totaling 14,500 units, have been delivered as part of orders for 20,250 new cars. In addition, 6,600 new cars were built in the road's own shops on earlier orders. About 1,190 additional new cars were scheduled for August delivery and 800 more this month. Thirty-three thousand rehabilitated box, gondola and hopper cars have also been put back into service.

The program, involving an expenditure of $223,000,000, has increased the road's freight-carrying capacity by 10 per cent over 1950. It is part of an overall equipment project nearing completion at a cost of $588,850,000, including $276,100,000 for diesel-electric locomotives.

LOCOMOTIVES

The **Atlanta & St. Andrews Bay** has ordered from the Electro-Motive Division of General Motors corporation two 1,500-hp. diesel-electric locomotive units for delivery next year.

The **Erie's** board of directors has authorized purchase of 13 additional diesel-electric locomotive units costing an estimated $1,900,000.

Paul W. Johnston, president, in announcing the authorization, predicted that the Erie probably will be the first fully dieselized trunk line railroad in the east. When delivery is made of the 15 units recently ordered *(Railway Age*, July 30, page 52), together with the 13 just authorized, Mr. Johnston said, the Erie "will be within striking distance of its goal of complete dieselization. Based on the current volume of business, it would take only approximately $9,000,000 more to complete the program. How fast we can go toward this goal will depend on our financial ability."

When equipment now on order is received, the Erie will own 427 diesel units. In July the road handled 94 per cent of its freight business with diesels. A year ago 60 per cent of all gross ton-miles were handled with diesels. The increased dieselization program is paying off in higher operating efficiency and economies, Mr. Johnston explained, reflected in such efficiency factors as "miles per car per day," which shows an increase of five per cent over a year ago, and "gross ton-miles per train hour," which set a new high record at 58,400 tons for the first seven months of 1951, an increase of three per cent over last year, the previous high record.

Steam locomotives are now in use on only three of the road's divisions. Ten years ago the Erie had 650 steam locomotives in service, compared now with 127, many of which are in assignments where very little mileage is made.

The **Toledo, Peoria & Western** has ordered from the Electro-Motive Division of General Motors Corporation two 1,500-hp. diesel-electric road-switching locomotive units at an estimated cost of $148,000 each.

SIGNALING

The General Railway Signal Company has received orders for 23 sets of intermittent inductive train control equipment. The Budd Company has ordered three sets for installation on diesel cars for the **New York Central;** and the American Locomotive Company has ordered 20 sets for installation on freight diesels, also for the **New York Central.**

The **Illinois Central** has ordered from the Union Switch & Signal Division of Westinghouse Air Brake Company material to install an automatic switching system at the northbound Markham yard, in Chicago. The route selection machine, with push-buttons for selection of routes to the 64 tracks, will be installed in the hump office. In addition, the order includes manual controls for 13 electro-pneumatic car retarders of the model 31 type, 44 single switches and 9 lap switches; 62 dual-control trailable-type electro-pneumatic switch machines as well as relays, rectifiers and transformers for track circuits to be installed at the 44 switches; switch storage control units, and housings. Field installation will be handled by railroad forces.

The **New York Central** has ordered equipment from the General Railway Signal Company for installation of a remote control interlocking at Glen, Ind. The control machine, nine miles away at Brant, will have 12 track lights and 10 working levers for control of 6 switch machines and 15 signals.

ORGANIZATIONS

Passenger Officers Plan Convention Aboard Ship

The waters of Lake Huron, Lake Superior, Georgian Bay and Lake Michigan will be the locale of the 88th annual convention of the American Association of Passenger Traffic Officers, which has been announced for September 15-19 aboard the S.S. "South American" of the Chicago, Duluth & Georgian Bay Transit Co.

The passenger men will board the vessel at Detroit and during the five-day meeting will hear from such speakers as William A. Lucking, president, Georgian Bay line; Edward C. Von Tress, manager, Holiday magazine; Kenneth L. Vore, director, Military Traffic Service, Department of Defense; Lawrence C. Mayher, vice-president, Robert Heller & Associates, management consultants; Leonard Hicks, vice-president and managing director, Hotel Congress, Chicago; William A. Patterson, president, United Air Lines, and A. L. Simmons, president, American Society of Travel Agents. The convention will be concluded upon arrival of the "South American" at Michigan Avenue bridge dock (Chicago) at 10:30 a.m. on the 19th. Association President E. J. Goebel is executive vice-president and passenger traffic manager of the Georgian Bay line.

The **Freight Claim Division** of the **Association of American Railroads** has selected the Statler hotel in New York for its 1952 business session, which will be held on June 3, 4 and 5.

Following a summer recess, the **Chicago Transportation Club** will resume its regular monthly meeting schedule with an evening meeting to be held in the La Salle Hotel September 4. The program, to be provided by the educational committee of the club,

HOW YOU CAN MAKE AMERICA STRONG — II

WORK LIKE YOUR LIFE DEPENDED ON IT —IT DOES!

Let's stop talking about this crisis, and *do* something. All the words in the world aren't going to make us strong enough to defend ourselves from attack.

Work will.

Plain, unadorned, dull, routine work.

We are the people who have got to provide the things needed to protect our freedom. Not necessarily working in a defense plant, either. Some of us will be making defense materials, but most of us must remain at our jobs.

And we must work hard at those jobs.

We don't have to wait for a go-ahead from the government. We can start today. Work harder, work better, produce more. The more we put out, the more we produce. Multiply that a few million times, and America has more goods, more products, more wealth, to foot our freedom bill.

It's going to be a big bill.

American brawn and brains can pay it.

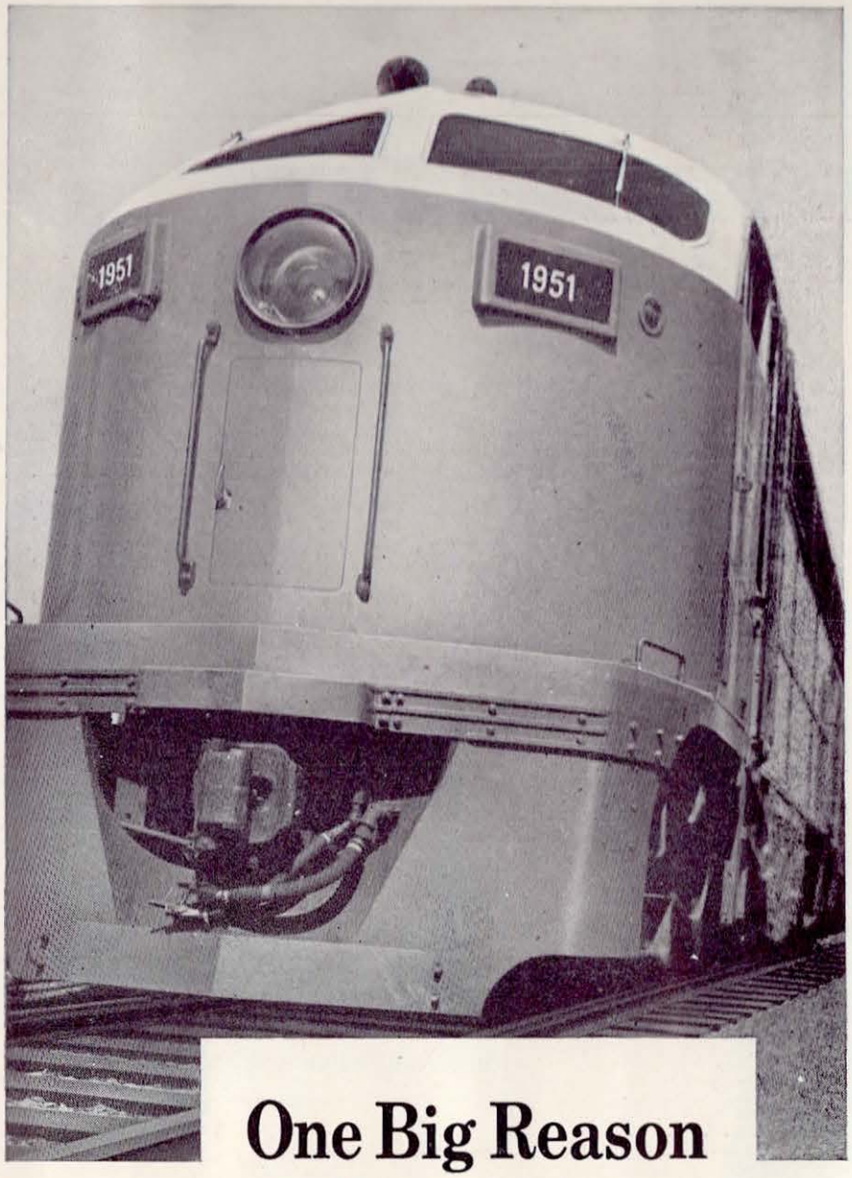
Let's get going.

WORK · SAVE · VOTE · PRAY TO MAKE AMERICA STRONG

GO T&P TEXAS AND PACIFIC RAILWAY

Yours is the power to make us strong spiritually, morally, politically and economically. Write today for a reprint of the article, "The Four Pillars of Freedom—Work, Save, Vote and Pray." Mail your request to: J. B. Shores, Public Relations Department, Texas and Pacific Railway, Dallas, Texas. No charge, of course!

★ This is one of a series of advertisements paid for by the Texas and Pacific Railway Company and sponsored in the public interest. Reprints of these advertisements are available from the Texas and Pacific Railway Company, Dallas, Texas.



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why Americans produce more and live better than any other people on earth: This nation has a system of railroads that moves more tons of freight more miles, at a lower average charge, than any other common carrier transportation system in the world.

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Association of American Railroads

WASHINGTON 6, D. C.

will deal with four of that committee's activities — the toastmasters forum, the speakers bureau, the speech class and the sales presentation forum.

The **Allegheny Regional Advisory Board** will hold its 65th regular meeting at the Roosevelt Hotel, Pittsburgh, on September 12 and 13.

The 86th regular meeting of the **Pacific Coast Transportation Advisory Board** will be held on September 13 and 14, at the Californian Hotel, Fresno, Cal. E. R. Oliver, vice-president, traffic, of the Southern, at Washington, D. C., will be guest speaker at the luncheon session on the 14th. The luncheon will be sponsored jointly by the **Fresno Chamber of Commerce** and the **Fresno Transportation Club.**

The **Railway Business Womens' Association of Washington, D. C.,** will resume its monthly dinner meetings at the New Colonial Hotel in that city on September 11. The guests of honor will include Sidney Kerl, manager of the Washington Terminal.

The **Women's Traffic Club of San Francisco** will hold an open meeting, jointly with the **San Francisco Traffic Club,** on September 19, at Sigmund Stern Grove, 19th avenue and Sloat boulevard, San Francisco. The principal speaker will be Robert J. Bayer, editor of Traffic World.

The **Southeast Shippers Advisory Board** will meet on September 20 in the St. Charles Hotel at New Orleans. W. S. Hackworth, president of the Nashville, Chattanooga & St. Louis, will be the principal speaker at the luncheon session to be held jointly with the **Traffic Club of New Orleans.**

ABANDONMENTS

Applications have been filed with the I.C.C. by:

CHICAGO, ROCK ISLAND & PACIFIC. — To abandon a 16.7-mile branch between Milan, Ill., and Preemption. The Rock Island Southern, which has been operating the line, has asked for authority to discontinue the operation.

MANCHESTER & ONEIDA.—To abandon its entire line, 8.2 miles, from Manchester, Iowa, to Oneida. The line has been operated at a loss for several years, with no prospects of improvement in the future, the application said.

Division 4 of the I.C.C. has **authorized:**

CHICAGO & NORTH WESTERN.—To abandon approximately 2.8 miles of branch line between Bryant, Wis., and Polar.

NASHVILLE, CHATTANOOGA & ST. LOUIS.—To abandon a 16.5-mile segment of its line between Union City, Tenn., and Hickman, Ky. Neither present nor prospective traffic is sufficient to warrant retention of the line, the I.C.C. report said.

PENNSYLVANIA. — To abandon its Delaware River ferry service between Philadelphia, Pa., and Camden, N. J., and a 1.02-mile segment of the so-called Cooper's Point branch (operated by the Pennsylvania-Reading Seashore Lines) in Camden. See *Railway Age*, August 27, page 60.

A MILESTONE IN 1851 — 100th ANNIVERSARY Great Lakes to the Sea Erie Railroad — 1951 AMERICAN HISTORY

WHERE THE TRAIN CREW SAYS: "Take it away, Captain!"

● Here is where Erie tracks end on the Hudson River in the great Port of New York and a new chapter begins in the handling of harbor and foreign shipment. Here Erie's unsurpassed facilities—covered and open piers, extensive yards and storage space, and modern handling machinery—save time and expense for shippers.

Erie's fleet numbers 256 vessels, one of the largest in New York Harbor. It ranges from car floats, refrigerated and heated barges, floating cranes to a fleet of diesel tugboats that keep in touch with shore by radio-telephone. This fleet and Erie's dock and shore facilities contribute to the fine name the Erie has earned in the handling of both domestic and overseas shipments.

These foreign freight facilities of Erie are another example of progressive railroading—the all-'round, dependable service in the movement of freight that serves industry and our country well, in peace or war!

Erie Railroad

Serving the Heart of Industrial America

Meet Your
"No. 1" FREIGHT INFORMATION MAN

Your Santa Fe Freight Representative knows the answers to your problems

Your Santa Fe freight representative is a professional "answer man," with ready access to the collective information, knowledge and "know-how" of Santa Fe's entire organization of transportation specialists.

He is either in your town, or has your town assigned to him. Either way, he is no further away than your telephone.

Call on him freely for expert advice on your shipping problems. Find out why *it pays to ship Santa Fe all the way.*

F. H. Rockwell, *General Freight Traffic Mgr.*
Santa Fe System Lines, Chicago 4, Illinois

Santa Fe—*all the way*

Santa Fe

SUPPLY TRADE

Raymond Otte, formerly assistant purchasing agent of the Chicago Great Western, will join the **Howard & Gould Co.** on September 4. Mr. Otte will be in charge of the office, and will handle most of the firm's contacts with local purchasing departments.

The **Spring Packing Corporation,** of Chicago, has been appointed exclusive national distributor for the railway products of **Dednox, Inc.,** also of Chicago.

Branson Instruments, Inc., have moved to a new plant at 430 Fairfield avenue, Stamford, Conn.

Effective September 1, the 111-year old **Lyon-Raymond Corporation** of Greene, N. Y., manufacturers of electrical industrial trucks and hydraulic elevating equipment, will be known as the **Raymond Corporation.** The name change was made, according to the company, "because the name Lyon

Andrew J. Wallner (above), has been appointed traffic manager of the Johns-Manville Corporation, and H. F. Washburn (below), assistant traffic manager.

Mr. Wallner was associated with the Clyde-Mallory Lines and the Borden Company before he joined Johns-Manville in 1937. Mr. Washburn joined the company in 1938

Photo by Josef A. Schneider

I agree with you 100%

You're absolutely right when you say ***your*** shipping problems are different. No two businesses have the same shipping quirks.

That's why Union Pacific's transportation experience works out so well for you. Knowing the needs of shippers in every class of industry is our business. Our freight representatives are ***specialists*** in their field, who can back up what they tell you with facts learned during their years of "on the job training."

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Need passenger reservations? All departments of Union Pacific work closely together. The representative you know will be glad to help you with your travel plans.

Be Specific – Ship "Union Pacific"

(Offices in 70 cities throughout the U.S.A.)

UNUSUAL

SALE*

used CHAIN CONVEYORS

in top Condition

Railway Express Agency offers for sale overhead tow chain trolley conveyors, together with "I" beam track, roller turns, caterpillar drives, starters and electric motors. Conveyors were used to tow platform trailers, *not as load carriers.* Consequently, most trackage is in excellent shape. Caterpillar drives and motors have never been subject to overload strain.

Chains are all No. 458, heat treated, rivetless chains, supported on ball bearing trolleys usually spaced at not more than 32". Tracks are 4", 7.7 lbs. high carbon "I" beams and turns are hardened face ball bearing rollers set in frames of 10' to 16' radius.

This sale results from changes in Railway Express handling methods and character of shipments requiring substitution of other types of equipment at the following Express Terminals.

★ Long Island City: Pennsylvania Express Terminal, 39th St. and Northern Boulevard. In place, two separate chains with 208V, 3 phase, 60 cycle motors. Chain "A" is 2060' long with three 20 HP motors and 3 caterpillar drives. Chain "B" is 1833' long with three 20 HP motors and 3 caterpillar drives. Installed by Mechanical Handling Systems, Inc.

★ New York City: West Side Terminal, 10th Avenue and 33rd St. In place, chain 2520' long, with three 20 HP, 220V, 3 phase, 60 cycle motors and 3 caterpillar drives. Installed by Mechanical Handling Systems, Inc.

★ Los Angeles: Express Terminal in Union Passenger Terminal. In place, chain 722' long, driven by one 15 HP, 440V, 3 phase, 60 cycle motor, with caterpillar drive. Installed by Jervis B. Webb Co.

★ Jersey City, N. J.: Garage at 168 York St. In storage, one caterpillar drive of 10 HP capacity and one 10 HP, 220V, 3 phase, 60 cycle motor in need of repairs. Installed by Jervis B. Webb Co.

When operations ceased, all conveyors were in excellent working condition. Now offered for sale separately or by parts, as is, and where is. May be readily inspected. Purchaser can take prompt delivery. Offers should be submitted to General Purchasing Agent, M. L. Tynan, 218 E. 44th St., New York City.

Robert M. Cowdin, who has been appointed traffic manager of the Burroughs Adding Machine Company, at its main plant in Detroit. Mr. Cowdin joined Burroughs in 1946 and was supervisor of domestic traffic until his present appointment

has no connection with present company management, and because it has, on occasion, caused some confusion with other similarly named manufacturers."

Frank M. Ruse has been appointed midwest transportation sales representative for the **Mercury Manufacturing Company,** Chicago. Mr. Ruse has been associated with sales of industrial trucks as well as

Frank M. Ruse

railroad equipment in the railroad supply industry since 1941. Before he entered the industrial handling field he worked for the Chicago, Rock Island & Pacific and the Austin C. Ruse Railway Supply Company.

Albert G. Moore, director of publicity of the **General Railway Signal Company** has retired after 40 years of continuous service with that company.

The partnership of **Drake, Startzman, Sheahan & Barclay** succeeded on June 1 to the consulting business of **Drake, Startzman, Sheahan, Barclay, Inc.,** distribution and materials handling consultants, 70 East 45th street, New York 17. **Albert B. Drake,** formerly president of the predecessor company, has retired.

The **Flexitallic Gasket Company,** Camden, N. J., has appointed **Hyslop Brothers,** Chicago and Los Angeles, as agent serving the railroad industry.

CONSTRUCTION

Chesapeake & Ohio.—Contracts have been awarded, at indicated probable costs, to: Darin & Armstrong, Inc., for a new freighthouse and office at McGrew, Mich. ($157,538); the Acme Construction Company, Cleveland, for grading and track work for industrial tracks (estimated to cost a total of $239,000), at Shandon, Ohio ($77,234); the Jutton-Kelly Company, to repair a joint bridge with the Detroit & Mackinac over the Saginaw river at Bay City, Mich. ($65,000); to Thomas-Wilson, Inc., for a yard office at Plymouth, Mich. ($33,774); and to the Forbes Construction Company, Huntington, W. Va., for relocating Williams creek at Grant, Ky. ($6,715).

The following projects have been authorized at the indicated probable costs: Replacing portion of Richmond viaduct (14th street to Rivanna Junction), in Richmond, Va. ($2,216,000); installing a C.T.C. system from Westham, Va., to Bremo, and from Lynchburg to Balcony Falls ($1,068,000); and constructing a commissary building at Ashland, Ky. ($47,090). The first two of these projects will be undertaken by the road's own forces.

FINANCIAL

Central of Georgia.—*Bond Issue.*—The I.C.C. has dismissed this road's pending application for authority to nominally issue $1,067,000 of series A first mortgage 4 per cent bonds (*Railway Age*, May 28, page 72.) Central decided to withdraw the application.

Western Pacific. — *Conditional Sales Agreement.*—The First National Bank of New York submitted the lowest bid for financing part of the cost

Chicago, Rock Island & Pacific-Ft. Worth & Denver.—*Operating Agreement.*—These roads have applied to the I.C.C. for approval of an agreement relating to operation of their joint Texas division, between Ft. Worth, Tex., and Galveston. The agreement covers the pooling or division of traffic, service and earnings. It

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...and Here's our
HURRY!
Katy's bringing a powerful new Diesel fleet Southwest!
More new giant road Diesels to pull longer freights, farther, faster. More Diesel yard switchers to trim your terminal transfer time. Equipment and service improvements all over the system.
Yes, Katy is stepping up the pace, blending smooth, speedy Diesel power with the dependable service Southwest shippers and travelers have relied on for nearly 80 years.
Your local Katy representative will be glad to tell you more about Katy's many new plans . . . and how you may benefit by shipping and traveling Katy, Southwest.
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is to be effective as of June 1, 1950, and remain in effect 15 years. It supercedes a similar agreement in effect since June 1, 1931. The Ft. Worth-Galveston line is leased by these two roads from the Burlington-Rock Island. That lease was approved by the I.C.C. earlier this year, and also constituted a renewal of existing arrangement (*Railway Age*, March 5, page 82.)

Long Island.—*Reorganization.*—Some practical plan of reorganization for this road can and must be developed on either a private or public basis, according to a statement mailed by the Long Island Transit Authority to public officials, civic leaders and businessmen on Long Island. The statement, the first from the authority since its appointment by Governor Thomas E. Dewey last June 30, also was distributed on August 30 aboard Long Island morning commuter trains. Several matters under negotiation must be settled before any definite decision can be reached about the type of reorganization, the statement said. Hope was expressed that the situation can be sufficiently clarified to permit a decision before the end of the year.

Long Island.—*Trustee Certificates.*—Making the "preliminary reports" which this road's trustee requested on his pending application for authority to issue $6,000,000 of trustee's certificates, Division 4 of the I.C.C. has found conditionally that the proposed issue is "for lawful objects within his [the trustee's] duly authorized purposes and compatible with the public interest, which are necessary and appropriate for and consistent with the proper performance by him of service to the public as a common carrier, and which will not impair his ability to perform that service." Supplemental reports and orders will be required to authorize actual issuance of the certificates, the proceeds of which will finance the acquisition of safety devices recommended by the commission and other public bodies (*Railway Age* of April 30, page 50).

The trustee requested the present report because of the September 1 deadline for notifying interested banks as to whether or not the money would be borrowed. The condition attached to the commission's finding stipulated that "prior to each actual issue of the certificates the applicant shall file with us a supplement to the applications, setting forth the amount of the certificates then proposed to be issued and a statement of the applicant's cash position at the time."

Southern.—*Acquisition.*—Two of this road's affiliates—the High Point, Randleman, Asheboro & Southern and the Carolina & Northwestern—have applied to the Interstate Commerce Commission for authority to acquire three miles of line in and near Asheboro, N. C., from the Norfolk Southern. The acquisition plan contemplates that High Point will buy the line for $64,000 and lease it for a fixed annual rental of $3,200 to C. & N., which is lessee of High Point's present railroad properties. The three-mile segment is part of a line between Asheboro and Star, N. C., which N. S. is seeking authority to abandon in another pending application; and the acquisition plan is contingent upon favorable commission action on this abandonment application.

Western Pacific.—*Conditional Sales Agreement.*—The First National Bank of New York submitted the lowest bid for financing part of the cost of 600 new box cars under a $2,594,990 conditional sale agreement. The cars are to be delivered during September and October by the Pullman-Standard Car Manfacturing Company at a total cost of $3,460,610. The bank's bid will provide funds at an interest rate of 3 per cent.

New Securities

Applications have been filed with the I.C.C. by:

CHICAGO, ROCK ISLAND & PACIFIC.—To assume liability for $5,700,000 of series J equipment trust certificates to finance in part 30 diesel-electric locomotive units and 520 box cars, costing an estimated $7,649,895.

	Equipment and Builder	Estimated Unit Cost
5	1,600-hp. road-switching locomotives (American Locomotive Company)	$146,863
15	1,600-hp. suburban locomotives (American)	175,470
10	1,500-hp. general purpose locomotives (Electro-Motive Division, General Motors Corporation)	148,156
520	50-ton steel sheathed box cars (Pullman-Standard Car Manufacturing Company)	5,400

The certificates, to be dated October 1, would mature in 30 semiannual installments of $190,000 each, beginning April 1, 1952. They would be sold on the basis of competitive bids, with the interest rate to be set by such bids.

TEXAS & PACIFIC.—To assume liability for $2,900,000 of series M equipment trust certificates, to finance in part six diesel-electric locomotive units and 450 freight cars. Estimated total cost of the new equipment is $3,949,601.

	Equipment and Builder	Estimated Unit Cost
6	2,250-hp. passenger locomotives (Electro-Motive Division, General Motors Corporation)	$238,632
200	50-ton box cars (Pressed Steel Car Company)	5,724
250	70-ton open-top hopper cars (American Car & Foundry Co.)	5,492

The certificates, to be dated October 1, would mature in 10 annual installments of $290,000 each, beginning October 1, 1952. They would be sold by competitive bids, with the interest rate to be set by such bids.

Division 4 of the I.C.C. has **authorized:**

BALTIMORE & OHIO.—To assume liability for $7,755,000 of series CC equipment trust certificates to finance in part 2,000 new hopper cars at an estimated total cost of $9,700,000. (*Railway Age*, July 30, page 56). The commission's report approved sale of the certificates at 99.3856, with interest at 3 per cent—the bid of Salomon Bros. & Hutzler and three associates—which will make the average annual cost of the proceeds approximately 3.1 per cent. The certificates, dated September 1, will mature in 15 annual installments of $517,000 each, beginning September 1, 1952. The certificates were reoffered to the public at prices yielding from 2.45 to 3.075 per cent, according to maturity.

Dividends Declared

ALABAMA & VICKSBURG.—$3, semiannual, payable October 1 to holders of record September 7.

ILLINOIS CENTRAL.—75¢, quarterly, payable October 1 to holders of record September 5.

NORTHERN PACIFIC.—(increased) 75¢, payable October 25 to holders of record October 3.

PITTSBURG, FORT WAYNE & CHICAGO.—common, $1.75, quarterly, payable October 1 to holders of record September 10.

VICKSBURG, SHREVEPORT & PACIFIC.—common, $2.50, semiannual; 5% preferred, $2.50, semiannual, both payable October 1 to holders of record September 7.

Security Price Averages

	Aug. 28	Prev. Week	Last year
Average price of 20 representative railway stocks	52.50	53.16	46.35
Average price of 20 representative railway bonds	91.93	92.78	95.84

RAILWAY OFFICERS

EXECUTIVE

Stephen T. Kelsey, Jr., has been appointed executive assistant of the CANTON, at Baltimore, Md.

Ephraim Rigg, general freight traffic manager of the CHICAGO, ROCK ISLAND & PACIFIC, at Chicago, has ben elected vice-president—freight traffic, succeeding the late **James W. Hill,** whose death was announced in the August 20 *Railway Age*. A native of Wilmington, N. C., Mr. Rigg started his railroad career with the Rock Island at its Kansas City commercial office in December 1906 as an office boy. With the exception of brief periods in his early career when he

Ephraim Rigg

served with the Muskogee, Oklahoma & Gulf, and in 1940 when he acted as a member of the standing rate committee of the Western Trunk Line Committee, he has spent his entire career on the Rock Island. Advancing through a number of positions, in 1935 he became general freight agent, in 1940, assistant general freight traffic manager and in 1944, assistant freight traffic officer. He was promoted to general freight traffic manager in January 1948.

Walter W. Cunningham, executive general agent of the ILLINOIS CENTRAL at Baton Rouge, La., will re-

(Continued on page 95)

One of the Greatest "Proving Grounds" is 400,000 miles long . . . and 4′ 8½″ wide!

When it comes to "service tests," the roughest, ruggedest of all are applied to new equipment for American railroads. Every mile of track is part of a mammoth proving ground. Tests are measured in years, and graded in hundreds of thousands of miles of failure-free operation. There's never been a time, during the past 83 years, when some item of Westinghouse Air Brake equipment wasn't being tested on this proving ground.

A lot of this new equipment you may never see. Such things as the Westinghouse Pneumatic Slack Adjuster, that automatically compensates for shoe wear of freight-car brake rigging, eliminating costly, time-consuming manual adjustment . . . the new D-24-B Feed Valve, that maintains brake pipe pressures to hair-line accuracy . . . the Westinghouse DECELOSTAT,® that eases and immediately restores brake pressure if wheel slip threatens, producing maximum deceleration for any rail condition . . . the Westinghouse speed governor control and load compensating brake equipment, that proportion braking pressures to speed and to car weight, respectively. Every item manufactured by Westinghouse Air Brake Company is designed to help the railroads in their never-ending program of constantly improving your transportation service. And every item is continuing evidence of how the Westinghouse research and development program has contributed to railroad progress.

Brakes are Basic to Railroad Progress

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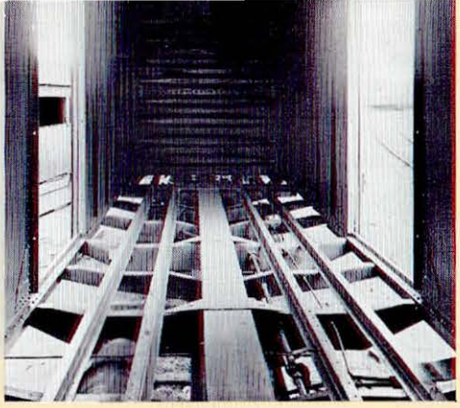
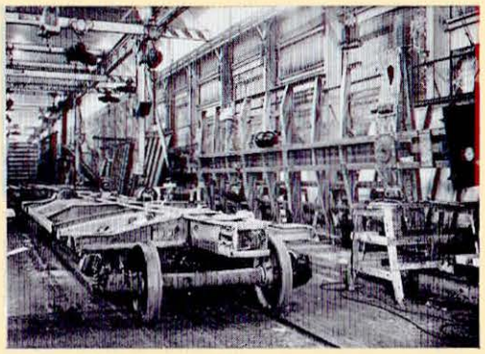
AIR BRAKE DIVISION

WILMERDING, PA.

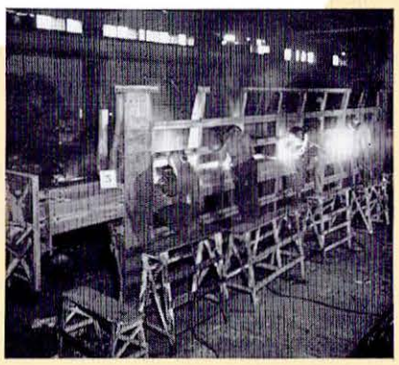
To Direct popular attention to the remarkable achievements of American Railroads, this advertisement has been run in national media by Westinghouse Air Brake Co., Air Brake Division.

Bert Yates





THE BUTCHER... THE BAKER... AND THE BOX CAR MAKER



Busy little "B's", to be sure, for these are busy times. Most important of these... as we naturally would see it... is the box car maker. For it is his craftsmanship that builds the new rolling stock that keeps the Railroads rolling. It is the Railroads that keep the butcher busy with tons and tons of meat... and the baker happy with mountains of flour, sugar and all it takes to bake a cake.

to build... or to buy?

We depend on the butcher for the best cuts of meat. We buy the baker's cake... he has the skill and experience to turn out the best for the lowest cost. The box car maker's art far exceeds both in complexity of skills and facilities needed to turn out a finished product. Why try to duplicate such costly facilities? America's leading Railroads for years have proved the efficacy of buying... rather than building... from an experienced car builder such as A.C.F. For A.C.F. facilities, personnel and experience are second to none. Call in an A.C.F. Representative and get the A.C.F facts on new freight cars and how A.C.F. Standardized Design Cars can improve your revenue picture.

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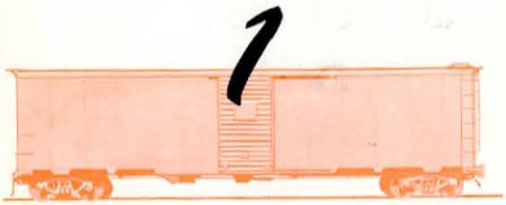
A.C.F. CAR BUILDERS TO AMERICA'S RAILROADS

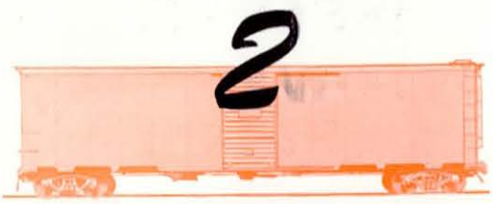
Oversize pads bonded through steel plates, working against steel plates provide extra absorption and greater capacity.

Why Today

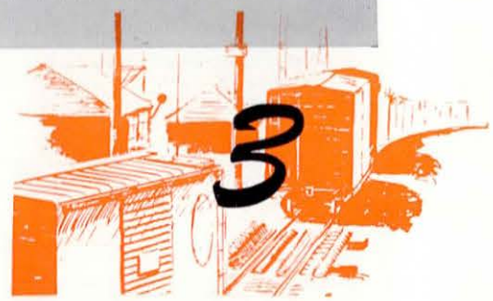
the need is growing for this extra protection!



Loads are greater and schedules tighter.

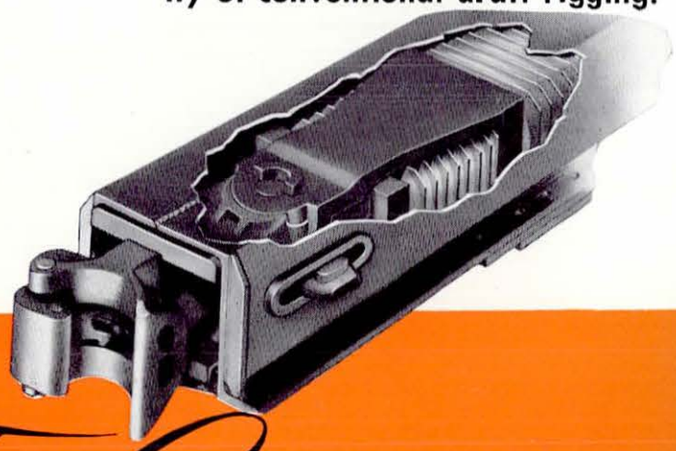


Welded steel cars are more rigid.



Flat yards, more and more, give place to hump yards where impacts generally exceed the capacity of conventional draft rigging.

Hump yard classification is the most vital reason why cars today need better cushioning. In hump yards, impacts at *less* than 4 miles per hour are the exception. For impacts of more than four miles an hour, cars require modern cushioning . . . Waughmat Twin Cushions. Twin Cushions protect cars and lading against the majority of excessive impacts of hump yard coupling.



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WAUGHMAT *Twin Cushions* TRADE MARK REGISTERED

WAUGH EQUIPMENT COMPANY, New York · Chicago · St. Louis · Canadian Waugh Equipment Company, Montreal

(Continued from page 90)
tire on September 30, after more than 47 years of service with that road.

Harry B. Light, general freight traffic manager of the READING, in charge of the freight traffic department, has been elected vice-president in charge of the freight traffic with headquarters as before at Philadelphia.

G. O. Henricson, assistant to comptroller of the ILLINOIS CENTRAL, has been appointed assistant to vice-president and comptroller, with headquarters remaining at Chicago.

FINANCIAL, LEGAL & ACCOUNTING

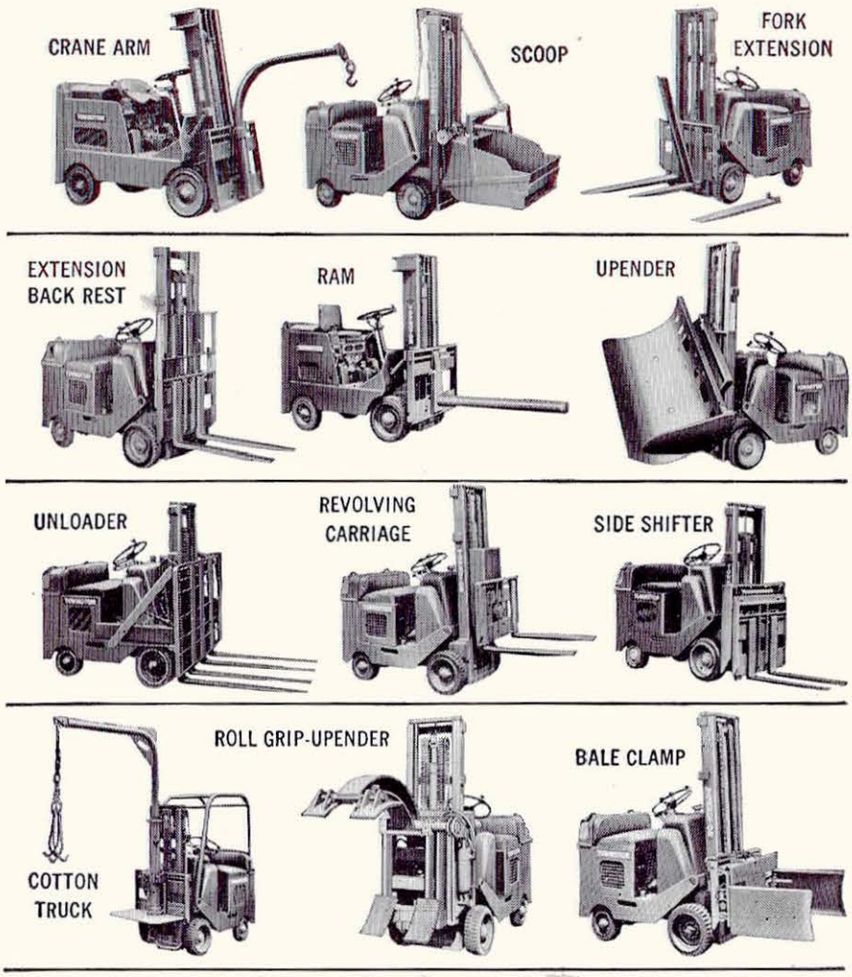
W. R. Rouse, assistant Western general counsel of the UNION PACIFIC at Omaha, has been promoted to Western general counsel. He succeeds the late **T. W. Bockes,** whose death is reported elsewhere in this issue. Mr. Rouse is a native of Galena, Ill., and a graduate of Creighton University. He entered U.P. service in 1911 in the engineering department, joined

W. R. Rouse

the law department in 1918, advanced to assistant to vice-president in March 1942, and four months later became assistant Western general counsel. Appointed assistant vice-president in June 1946, handling specialized legal assignments, in July 1949 he resumed the title of assistant Western general counsel.

K. H. Lyrla, general auditor of the ILLINOIS CENTRAL, has been appointed assistant comptroller. A photo and biographical sketch of Mr. Lyrla appeared in the September 9, 1950, *Railway Age* in connection with his appointment as general auditor.

Everett W. Smith, assistant to vice-president—finance, of the BOSTON & MAINE, has been elected treasurer, succeeding **Edward J. Gallagher,** retired. Mr. Gallagher was born at St. John, N. B., July 3, 1887. He was graduated from Harvard in 1912 and in the same year entered the service of



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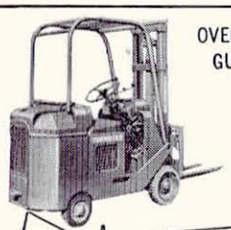

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the B. & M. as secretary to the vice-president in charge of finance and accounting. In 1925 he was appointed assistant to vice-president and in 1928 was also made assistant treasurer. He was elected treasurer on September 12, 1933. Mr. Gallagher was also treasurer of the B. & M. Transportation Co. and the Mystic Terminal Co.

OPERATING

E. J. Jones, trainmaster of the NEW YORK CENTRAL, has been appointed assistant superintendent, Hudson and Mohawk divisions, with headquarters as before at Albany, N. Y.

A. F. Grimes has been appointed trainmaster of the Hudson and Mohawk divisions at Albany.

W. R. Winkler, assistant division superintendent of the LOUISVILLE & NASHVILLE at Corbin, Ky., has been transferred to the Louisville division, with headquarters at Paris, Tenn., succeeding **K. W. Graham,** assigned to other duties.

J. R. Conerly, superintendent of the GULF, MOBILE & OHIO'S Western division at Slater, Mo., has been transferred in that capacity to the Eastern division at Bloomington, Ill. He succeeds **B. V. Bodie,** newly-appointed chief engineer *(Railway Age,* August 27). Replacing Mr. Conerly at Slater is **J. C. Miller,** superintendent at Murphysboro, Ill. The jurisdiction of Superintendent **S. G. Thomason,** heretofore headquartered at St. Louis, has been extended to Tamms, Ill., with new headquarters at Murphysboro.

G. L. Boyd, diesel road foreman of engines on the Capreol division, CANADIAN NATIONAL, has been appointed trainmaster at Gravenhurst, Ont., succeeding **G. H. Sanderson,** promoted *(Railway Age,* July 23).

TRAFFIC

C. A. Pollock, general freight agent of the UNION PACIFIC at Chicago, is retiring, and, effective September 1, was succeeded by **M. R. Bryan,** general agent, freight department, at that point. **C. E. Shanahan,** freight traffic agent at Chicago, replaces Mr. Bryan. Mr. Pollock, who is a native of Chicago, where he was born March 15, 1882, began his railroad career as a messenger with the Western Passenger Association at Chicago in 1898. Joining the U.P. in 1909 as a freight department cashier and reconsigning clerk, in 1935 he became general agent; in 1937, freight traffic general agent, and in 1944, general freight agent.

Mr. Bryan was born on December 31, 1888, at Neenah, Wis., and served with the Chicago, Milwaukee, St. Paul & Pacific, the Chicago & North Western and the Minneapolis, St. Paul & Sault Ste. Marie before coming to the U.P. in 1920 as traveling freight agent at Milwaukee. Appointed general agent in 1939, he moved to Chicago in 1944 as general agent, freight department.

Everett T. Willson has been appointed assistant general freight agent of the CHICAGO, ROCK ISLAND & PACIFIC at Omaha. He previously represented the Rock Island at Peoria, Ill., and Colorado Springs, Colo.

William E. Allison, manager for 21 years of the mail and baggage traffic department of the CANADIAN PACIFIC, at Montreal, has retired. He has been succeeded by **J. Earle Tweedy,** general mail and baggage agent at Montreal.

W. R. St. John, general agent, freight department, of the DELAWARE & HUDSON, at Buffalo, N. Y., has been appointed assistant general freight agent at Albany, N. Y. **Joseph F. Hartman,** general agent, freight department, at Cleveland, has been transferred to Buffalo, succeeding Mr. St. John, and has been succeeded in turn by **Leonard Unger.**

J. Warren Lawson, freight traffic manager of the READING, has been appointed general freight traffic manager, with headquarters as before at

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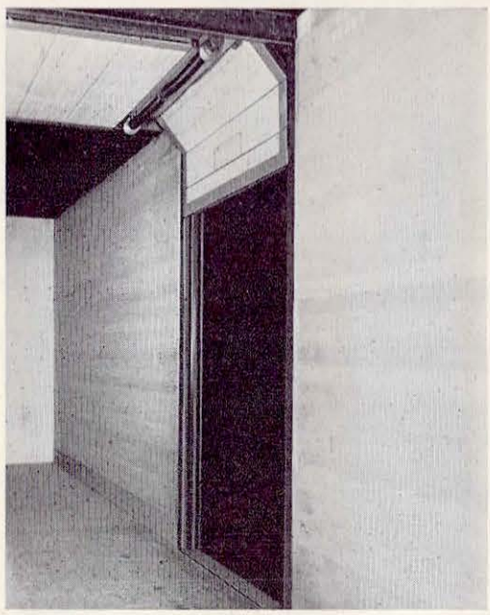

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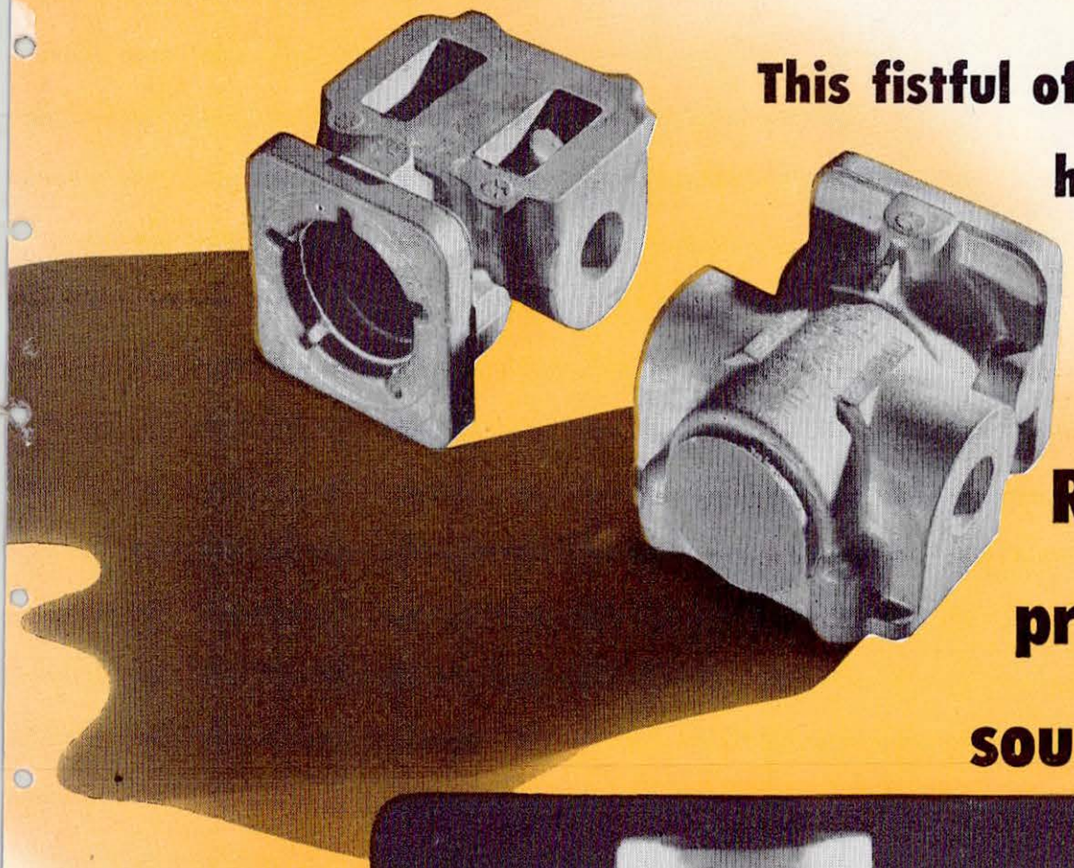
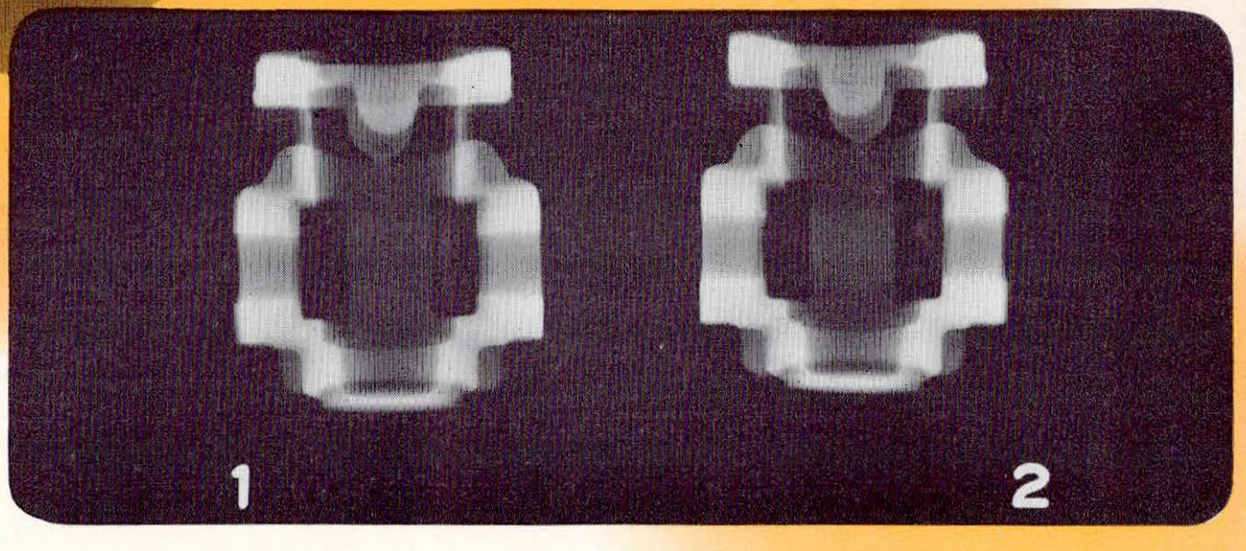


This fistful of pump has a plane-size job...

Radiography proves it sound



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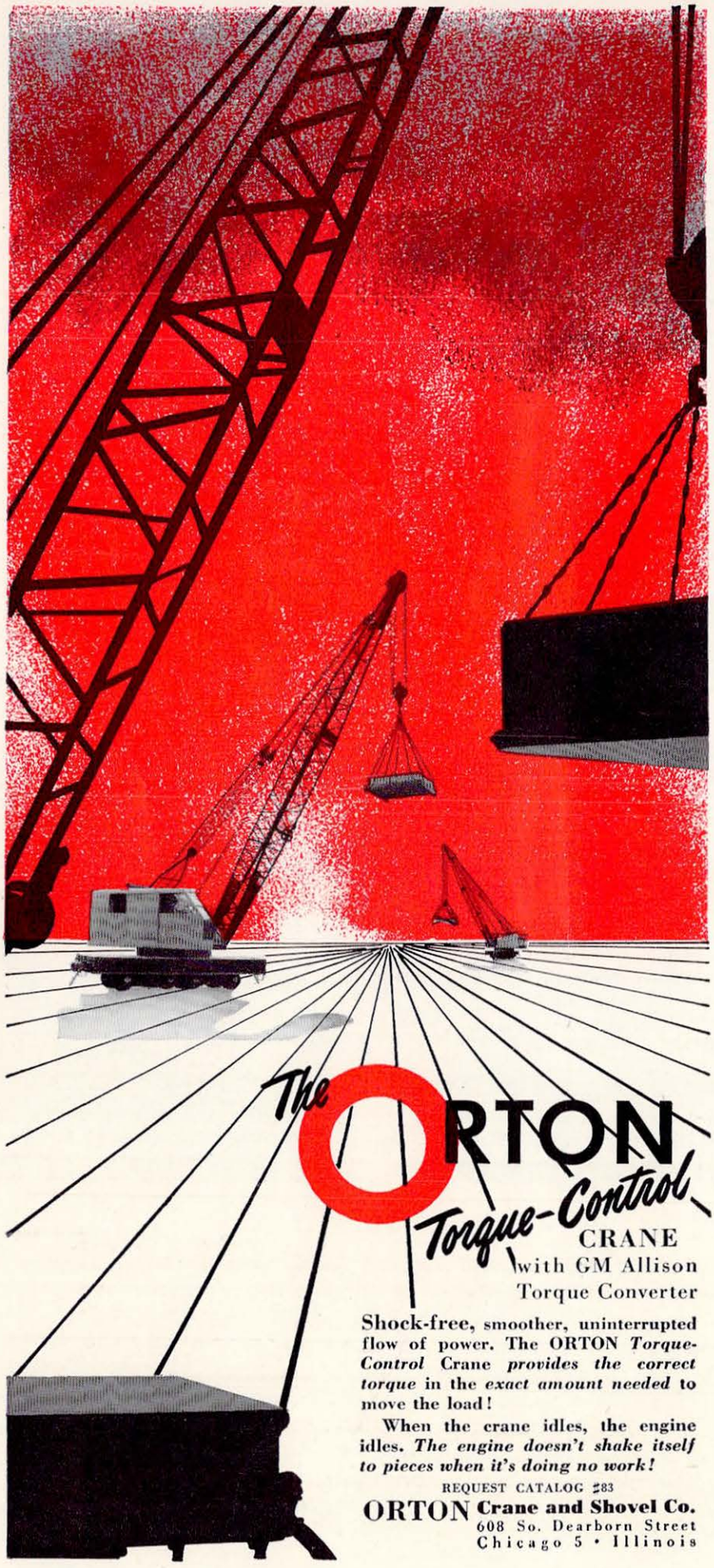
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Philadelphia, succeeding **Harry B. Light,** whose election to vice-president in charge of freight traffic is announced elsewhere in this issue. **Thomas H. Ramsey, Jr.,** western freight traffic manager at Chicago, succeeds Mr. Lawson, and is in turn succeeded by **Victor L. Pernter,** division freight agent at Harrisburg, Pa. **Harold E. Pauli,** New England freight agent at Boston, has been appointed division freight agent at Harrisburg, to succeed Mr. Pernter, and **Paul R. Fagan,** traveling freight agent at Harrisburg, succeeds Mr. Pauli.

A. J. Van Ornum, commercial agent of the CLINCHFIELD at Chicago, has been appointed district freight agent there, succeeding the late **R. L. Helstrom,** whose death is announced elsewhere in this issue.

Following the election of **Ephraim Rigg** as vice-president—freight traffic of the CHICAGO, ROCK ISLAND & PACIFIC, as noted in the Executive column, changes involving 10 other traffic officers have been announced: **John M. Spann,** freight traffic manager in charge of sales and service, advanced to general freight traffic manager, with headquarters as before at Chicago; **William B. Futral,** assistant freight traffic manager at Kansas City, Mo., promoted to succeed Mr. Spann; **Elden A. Tharp,** assistant freight traffic manager, advanced to freight traffic manager in charge of rates and divisions; **John E. Capps,** assistant freight traffic manager, and **Leonard Hill,** general freight agent, appointed assistant freight traffic managers, rates and divisions, with headquarters continuing at Chicago; **Franklin D. Staley,** district freight traffic manager at Seattle, made assistant freight traffic manager, sales and service, at Kansas City; **James N. Hunt,** district freight traffic manager at Los Angeles, transferred to San Francisco as Western freight traffic manager, sales and service, with supervision over the entire Pacific coast area; **Claire N. Packard, Jr.,** district freight traffic manager at San Francisco, appointed Mr. Hunt's successor; **F. L. Rettke,** assistant general freight agent at Chicago, promoted to general freight agent, rates and divisions, there; and **Ernest J. Heater,** traffic rate clerk, made assistant general freight agent, rates and divisions, at Chicago.

Mr. Staley is a native of Garden City, Mo. He joined the Rock Island at Toulon, Ill., in 1913 as a station helper, and subsequently served as telegrapher, agent, general dairy and poultry agent and assistant general freight agent before becoming district freight traffic manager at Seattle.

Starting with the Rock Island in 1913 as a clerk at Des Moines, Iowa, his home town, Mr. Hunt later acted as chief clerk, traveling freight agent,
(Continued on page 102)

How many railroads own this train?

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Freight Operating Statistics of Large Steam Railways — Selected

	Region, Road and Year		Miles of road operated	Locomotive-Miles: Train-miles	Locomotive-Miles: Principal and helper	Locomotive-Miles: Light	Car-Miles: Loaded (*thousands*)	Car-Miles: Per cent loaded	Ton-Miles (*thousands*): Gross excl.locos. & tenders	Ton-Miles (*thousands*): Net rev. and non-rev.	Road locos. on line: Serviceable: Unstored	Road locos. on line: Serviceable: Stored	Road locos. on line: B.O.	Road locos. on line: Per Cent B.O.
New Eng. Region	Boston & Maine	1951	1,691	276,244	283,675	12,371	11,056	72.1	679,192	291,983	86	4	12	11.8
		1950	1,700	272,654	281,487	12,688	10,419	68.8	653,585	273,001	91	5	12	11.1
	N. Y., N. H. & Htfd.	1951	1,766	318,730	318,963	19,730	12,052	68.0	809,478	373,674	97	..	9	8.5
		1950	1,771	300,570	301,400	34,406	12,207	68.4	755,844	337,579	111	..	16	12.6
Great Lakes Region	Delaware & Hudson	1951	793	259,715	303,189	23,353	11,583	75.2	797,916	441,665	139	15	13	7.8
		1950	794	249,903	297,891	30,088	10,546	68.2	747,639	393,118	132	36	23	12.0
	Del., Lack. & Western	1951	964	294,755	318,852	31,902	13,485	70.6	890,342	416,034	84	7	16	15.0
		1950	965	272,736	293,691	31,889	12,659	70.2	824,408	377,276	78	6	36	30.0
	Erie	1951	2,245	633,236	643,058	33,640	34,923	68.5	2,190,807	917,659	179	31	26	11.0
		1950	2,231	700,151	731,789	53,538	37,856	69.0	2,401,807	1,027,580	182	1	42	18.7
	Grand Trunk Western	1951	952	271,201	274,620	2,615	9,118	65.8	606,202	260,854	52	..	16	23.5
		1950	971	301,869	311,326	2,645	10,978	64.5	737,016	311,299	58	..	12	17.1
	Lehigh Valley	1951	1,211	252,912	264,572	19,572	12,885	70.6	865,094	418,729	39	5	7	13.7
		1950	1,238	256,716	272,929	24,760	13,323	70.6	875,313	414,312	52	4	31	35.6
	New York Central	1951	10,675	3,060,467	3,259,473	176,294	114,432	63.3	8,133,898	3,717,198	980	48	391	27.6
		1950	10,691	2,561,004	2,705,546	169,096	91,743	62.3	6,426,570	2,864,829	997	49	395	27.4
	New York, Chic. & St. L.	1951	2,161	816,650	845,371	12,810	32,326	68.3	2,234,606	1,035,824	203	12	34	13.7
		1950	2,162	837,523	857,253	13,916	33,997	66.1	2,306,112	1,016,759	192	..	51	21.0
	Pitts. & Lake Erie	1951	221	95,784	96,960	17	4,007	70.1	331,051	204,979	30	..	15	33.3
		1950	221	82,017	84,739	7	3,287	68.0	275,519	169,093	30	1	21	40.4
	Wabash	1951	2,381	545,693	550,467	8,634	23,171	70.4	1,479,505	632,344	123	11	77	36.5
		1950	2,381	633,584	638,708	10,125	25,562	68.6	1,605,610	641,309	142	1	62	30.2
Central Eastern Region	Baltimore & Ohio	1951	6,083	1,794,498	2,066,636	209,445	71,104	64.4	5,411,069	2,721,844	620	108	176	19.5
		1950	6,086	2,023,782	2,459,854	272,538	75,215	64.9	5,678,782	2,794,036	700	54	253	25.1
	Central of New Jersey	1951	410	76,229	76,521	4,014	2,936	66.3	218,357	114,848	41	..	5	10.9
		1950	410	73,196	76,489	5,208	2,926	66.0	221,448	113,406	34	1	12	25.5
	Central of Pennsylvania	1951	210	72,753	78,631	10,819	2,780	69.5	202,192	109,504	34	..	6	15.0
		1950	212	73,054	81,514	14,124	2,960	70.7	216,943	116,734	35	1	16	30.8
	Chicago & Eastern Ill.	1951	886	131,356	131,356	3,862	5,117	68.6	327,573	152,474	25	..	2	7.4
		1950	886	135,994	135,994	2,921	5,199	69.2	330,907	155,651	26	1	1	3.6
	Elgin, Joliet & Eastern	1951	238	99,120	100,095	556	3,932	65.1	311,033	169,450	43	..	..	..
		1950	238	103,072	104,059	72	3,774	65.3	300,581	159,851	38	..	2	5.0
	Pennsylvania System	1951	10,045	3,339,869	3,622,620	379,952	143,380	67.1	10,218,500	5,084,349	1,232	74	293	18.3
		1950	10,042	2,661,754	2,898,515	326,353	109,022	65.9	7,704,614	3,759,332	1,254	..	400	24.2
	Reading	1951	1,311	371,882	386,046	31,162	14,158	67.0	1,079,928	584,542	171	30	29	12.6
		1950	1,315	375,986	395,236	34,097	14,910	68.2	1,128,344	620,290	177	20	43	17.9
	Western Maryland	1951	837	172,389	199,871	20,054	6,210	65.6	491,150	272,709	119	7	22	14.9
		1950	837	176,933	207,054	23,240	6,652	64.7	533,295	296,973	146	33	15	7.7
Pocahontas Region	Chesapeake & Ohio	1951	5,042	1,480,452	1,551,182	64,314	69,349	58.7	5,910,811	3,327,337	494	15	249	32.8
		1950	5,045	1,518,684	1,609,191	68,168	65,065	57.7	5,460,731	2,993,269	521	34	157	22.1
	Norfolk & Western	1951	2,113	776,013	820,161	57,348	36,896	58.6	3,283,760	1,795,172	245	20	21	7.3
		1950	2,107	699,300	734,592	45,170	31,906	59.1	2,756,132	1,484,211	244	31	44	13.8
Southern Region	Atlantic Coast Line	1951	5,434	988,166	990,463	17,065	30,038	62.2	2,055,289	909,999	364	20	108	22.0
		1950	5,480	872,236	875,824	12,436	25,016	63.2	1,699,054	759,014	315	19	105	23.9
	Central of Georgia	1951	1,765	293,993	296,440	4,314	8,185	71.9	537,080	255,445	123	3	5	3.8
		1950	1,783	279,087	283,617	4,613	7,597	74.0	473,634	222,966	98	2	10	9.1
	Gulf, Mobile & Ohio	1951	2,851	335,042	335,042	243	17,182	72.5	1,111,117	532,933	80	..	3	3.6
		1950	2,851	329,592	329,592	370	14,954	71.4	953,205	437,675	62	5	3	4.3
	Illinois Central	1951	6,539	1,549,894	1,556,551	53,598	54,624	64.1	3,894,905	1,795,146	578	14	68	10.3
		1950	6,543	1,495,758	1,500,933	54,307	52,040	64.2	3,688,173	1,693,547	558	1	95	14.5
	Louisville & Nashville	1951	4,769	1,145,825	1,230,014	33,813	37,356	63.9	2,748,519	1,350,772	334	13	83	19.3
		1950	4,770	1,307,628	1,417,316	38,042	38,705	63.2	2,858,909	1,397,523	345	24	99	21.2
	Nash., Chatt. & St. Louis	1951	1,049	213,057	217,325	3,855	6,717	72.7	428,143	202,166	74	..	4	5·1
		1950	1,049	227,445	231,028	4,669	6,636	75.2	407,275	191,332	60	..	2	3.2
	Seaboard Air Line	1951	4,136	823,225	845,057	6,939	28,670	63.8	2,002,349	868,947	238	37	51	15.6
		1950	4,136	779,863	804,958	6,431	24,946	64.5	1,733,017	751,296	287	31	29	8.4
	Southern	1951	6,302	1,274,752	1,282,806	14,006	43,341	70.1	2,753,233	1,257,968	382	17	184	31.6
		1950	6,320	1,077,244	1,086,607	12,127	34,446	68.6	2,237,565	1,022,891	389	45	147	25.3
Northwestern Region	Chicago & North Western	1951	7,910	924,737	938,365	23,825	34,506	68.3	2,405,337	1,104,192	310	18	147	30.9
		1950	7,998	904,963	916,799	20,832	32,209	65.3	2,273,136	934,061	300	26	130	28.5
	Chicago Great Western	1951	1,441	154,072	154,072	10,147	8,891	71.0	584,138	268,664	30	..	2	6.3
		1950	1,441	154,625	154,743	3,961	8,499	68.3	553,113	242,081	33	..	1	2.9
	Chic., Milw., St. P. & Pac.	1951	10,664	1,229,024	1,272,730	43,969	47,214	66.2	3,235,535	1,491,808	440	71	58	10.2
		1950	10,663	1,227,307	1,271,471	44,242	45,714	65.8	3,067,211	1,371,137	414	57	96	16.9
	Chic., St. P., Minn. & Omaha	1951	1,606	207,785	213,636	9,119	5,585	69.4	403,672	195,607	69	3	28	28.0
		1950	1,606	179,578	184,201	8,168	5,174	70.9	335,027	145,579	70	4	39	34.5
	Duluth, Missabe & Iron Range	1951	565	204,855	205,871	1,248	8,912	50.4	1,065,930	593,199	57	..	7	10.9
		1950	562	149,204	149,883	1,301	7,124	51.4	764,959	466,828	45	..	2	4.3
	Great Northern	1951	8,220	1,171,337	1,172,261	40,490	49,059	63.5	3,773,992	1,893,899	339	71	63	13.3
		1950	8,220	1,051,080	1,051,060	38,137	39,649	63.0	2,958,675	1,427,184	334	71	59	12.7
	Minneap., St. P. & S. Ste. M.	1951	4,179	435,283	443,089	4,669	14,928	66.6	1,028,044	503,037	116	..	15	11.5
		1950	4,179	295,333	400,570	5,598	13,252	67.6	868,755	409,284	99	..	20	16.8
	Northern Pacific	1951	6,591	870,158	916,901	42,623	35,636	68.0	2,495,800	1,196,302	343	8	63	15.2
		1950	6,608	762,675	798,336	36,107	32,199	70.3	2,171,895	1,030,527	292	42	63	15.9
Central Western Region	Atch., Top. & S. Fe (incl. G. C. & S. F. and P. & S. F.)	1951	13,096	2,747,516	2,900,702	98,499	113,334	64.9	7,721,568	3,022,111	629	63	182	20.8
		1950	13,073	1,952,573	2,032,715	66,580	77,270	64.3	5,237,137	1,997,156	575	213	109	12.2
	Chic., Burl. & Quincy	1951	8,788	1,130,844	1,138,002	43,987	47,722	66.5	3,269,638	1,511,882	323	55	137	26.6
		1950	8,816	1,132,105	1,148,071	46,202	46,295	67.2	3,112,651	1,419,926	359	42	169	29.6
	Chic., Rock I. & Pac.	1951	7,903	1,096,248	1,122,375	19,987	38,900	62.7	2,703,094	1,195,373	237	23	63	19.5
		1950	7,597	1,111,067	1,146,806	19,069	38,988	62.3	2,615,323	1,090,952	229	36	78	22.7
	Denver & R. G. Wn.	1951	2,334	313,427	338,907	33,516	14,465	71.7	982,153	474,677	92	43	29	17.7
		1950	2,413	362,417	390,023	44,211	13,957	73.2	905,294	456,496	110	38	27	15.4
	Southern Pacific	1951	8,052	2,291,220	2,424,878	307,195	102,171	66.4	6,886,164	2,805,819	714	9	153	17.5
		1950	8,067	2,401,011	2,576,498	377,222	106,034	63.6	7,173,935	2,745,806	739	4	175	19.1
	Union Pacific	1951	9,712	2,399,376	2,497,952	177,891	105,201	67.4	7,069,665	3,109,814	577	63	151	19.1
		1950	9,719	2,225,069	2,315,012	153,263	99,841	67.4	6,609,356	2,656,439	504	99	183	23.3
	Western Pacific	1951	1,190	222,195	225,573	20,552	11,395	76.6	705,320	329,961	39	18	33	36.7
		1950	1,192	234,455	243,357	25,895	11,225	75.4	715,474	335,312	56	11	28	29.5
Southwestern Region	International-Gt. Northern*	1951	1,104	211,831	212,191	593	7,117	65.8	514,856	237,811	51	..	17	25.0
		1950	1,110	190,906	190,906	580	6,141	63.8	438,195	184,609	58	5	7	10.0
	Kansas City Southern	1951	886	178,518	178,518	523	9,481	69.3	642,217	306,190	30	12	24	36.4
		1950	886	150,785	151,608	416	7,629	64.8	523,863	232,681	34	9	14	24.6
	Mo.-Kans.-Texas Lines	1951	3,230	401,966	404,100	6,436	14,866	64.4	969,377	415,436	81	15	26	21.3
		1950	3,231	437,676	444,772	5,723	15,442	62.5	1,007,865	415,642	89	3	35	27.6
	Missouri Pacific*	1951	6,942	1,328,727	1,349,173	16,668	48,642	65.4	3,332,447	1,499,409	343	15	66	15.6
		1950	6,949	1,276,804	1,291,972	21,457	45,383	66.4	2,989,985	1,294,755	329	1	60	15.4
	Texas & Pacific	1951	1,844	358,471	358,471	6,277	14,209	62.2	1,014,337	390,814	94	5	..	..
		1950	1,844	360,185	360,185	16,578	13,482	63.2	916,642	338,174	74	..	5	6.3
	St. Louis-San Francisco	1951	4,570	692,953	697,921	7,029	24,034	63.1	1,660,893	730,564	200	73	93	25.4
		1950	4,606	678,262	685,142	7,373	21,869	64.3	1,460,497	629,550	213	76	62	17.7
	St. Louis Southw. Lines	1951	1,562	376,337	380,336	5,114	15,628	74.1	951,914	425,519	76	10	16	15.7
		1950	1,562	349,059	350,393	4,679	14,384	69.9	870,808	389,263	73	17	18	16.7
	Texas & New Orleans	1951	4,291	840,521	840,633	21,900	28,417	67.3	1,937,591	861,636	224	..	47	17.3
		1950	4,314	797,862	797,862	14,023	26,278	64.7	1,784,011	750,347	202	1	82	28.8

Items for the Month of May 1951 Compared with May 1950

	Region, Road and Year	Freight cars on line: Home	Freight cars on line: Foreign	Freight cars on line: Total	Per Cent B.O.	G.t.m.per train-hr. excl.locos and tenders	G.t.m.per train-mi. excl.locos. and tenders	Net ton-mi. per train-mile	Net ton-mi. per l'd. car-mile	Net ton-mi. per car-day	Car-miles per car-day	Net daily ton-mi. per road-mi.	Train-miles per train-hour	Miles per loco. per day
New Eng. Region	Boston & Maine 1951	1,329	9,571	10,900	1.5	39,453	2,462	1,058	26.4	895	47.0	5,570	16.0	102.2
	1950	1,667	9,563	11,230	3.9	38,212	2,402	1,003	26.2	832	46.2	5,180	15.9	95.9
	N. Y., N. H. & Htfd. 1951	1,404	17,773	19,177	1.6	38,508	2,541	1,173	31.0	645	30.6	6,826	15.2	121.4
	1950	1,741	18,704	20,445	1.6	36,486	2,516	1,124	27.7	539	28.5	6,149	14.5	92.6
Great Lakes Region	Delaware & Hudson 1951	1,845	6,645	8,490	5.2	58,434	3,087	1,708	38.1	1,652	57.6	17,966	19.0	57.0
	1950	3,000	6,566	9,566	5.9	53,864	3,002	1,579	37.3	1,351	53.2	15,971	18.0	59.1
	Del., Lack. & Western 1951	4,763	10,945	15,708	7.4	47,001	3,074	1,436	30.9	847	38.9	13,922	15.6	117.5
	1950	6,208	11,453	17,661	11.1	46,892	3,082	1,410	29.8	703	33.6	12,612	15.5	97.3
	Erie 1951	6,276	21,938	28,214	3.9	59,606	3,484	1,459	26.3	1,059	58.8	13,186	17.2	102.1
	1950	9,228	22,079	31,307	7.2	59,110	3,460	1,480	27.1	1,083	57.8	14,858	17.2	124.5
	Grand Trunk Western 1951	3,822	9,396	13,218	5.8	46,226	2,253	970	28.6	636	33.8	8,839	20.7	136.8
	1950	4,519	12,232	16,751	6.7	49,371	2,467	1,042	28.4	652	35.6	10,342	20.2	158.5
	Lehigh Valley 1951	3,141	12,161	15,302	6.4	66,316	3,478	1,683	32.5	834	38.5	11,154	19.4	182.1
	1950	4,824	10,584	15,408	8.6	67,172	3,468	1,641	31.1	863	39.3	10,796	19.7	110.9
	New York Central 1951	54,542	127,525	182,067	4.7	45,205	2,693	1,231	32.5	672	32.7	11,233	17.0	87.1
	1950	68,413	99,255	167,668	8.7	42,596	2,556	1,139	31.2	546	28.1	8,644	17.0	72.5
	New York, Chic. & St. L. 1951	5,335	20,539	25,874	3.3	50,411	2,791	1,294	32.0	1,328	60.7	15,462	18.4	116.8
	1950	5,623	20,862	26,485	4.2	49,969	2,802	1,235	29.9	1,238	62.6	15,171	18.1	119.4
	Pitts. & Lake Erie 1951	3,551	12,617	16,168	9.6	50,790	3,469	2,148	51.2	447	12.5	29,920	14.7	72.5
	1950	4,526	10,158	14,684	18.0	46,937	3,365	2,065	51.4	356	10.2	24,682	14.0	60.3
	Wabash 1951	6,279	12,661	18,940	3.3	58,052	2,734	1,169	27.3	1,060	55.2	8,567	21.4	90.0
	1950	6,615	12,764	19,379	2.8	54,275	2,556	1,021	25.1	1,068	62.1	8,689	21.4	106.5
Central Eastern Region	Baltimore & Ohio 1951	45,379	58,515	103,894	5.3	42,299	3,055	1,537	38.3	846	34.3	14,434	14.0	81.9
	1950	35,218	54,121	89,339	11.6	37,099	2,865	1,410	37.1	1,054	43.8	14,809	13.2	89.6
	Central of New Jersey 1951	330	9,185	9,515	2.6	37,962	2,997	1,576	39.1	390	15.0	9,036	13.3	85.3
	1950	718	10,112	10,830	6.3	38,987	3,123	1,600	38.8	354	13.8	8,923	12.9	85.5
	Central of Pennsylvania 1951	1,410	3,040	4,450	19.5	43,642	2,999	1,624	39.4	786	28.7	16,821	15.7	84.7
	1950	913	3,375	4,288	16.4	43,467	3,135	1,687	39.4	852	30.6	17,762	14.6	73.6
	Chicago & Eastern Ill. 1951	1,599	3,010	4,609	9.2	42,708	2,509	1,168	29.8	1,022	50.0	5,551	17.1	167.1
	1950	1,937	4,190	6,127	7.7	43,346	2,440	1,148	29.9	830	40.0	5,667	17.8	144.1
	Elgin, Joliet & Eastern 1951	5,865	14,617	20,482	3.1	20,364	3,241	1,766	43.1	251	9.0	22,967	6.5	112.9
	1950	6,992	12,996	19,988	1.8	22,586	3,005	1,598	42.4	256	9.2	21,666	7.7	113.0
	Pennsylvania System 1951	92,459	118,339	210,789	9.3	47,009	3,162	1,573	35.5	787	33.1	16,328	15.4	88.1
	1950	108,441	107,387	215,828	16.1	44,241	2,996	1,462	34.5	558	24.5	12,076	15.3	69.4
	Reading 1951	10,447	19,794	30,241	4.0	37,461	2,904	1,572	41.3	597	21.6	14,383	12.9	68.3
	1950	10,634	20,938	31,572	9.1	37,227	3,002	1,650	41.6	645	22.7	15,216	12.4	72.1
	Western Maryland 1951	5,233	3,173	8,406	2.2	41,946	2,901	1,611	43.9	1,063	36.9	10,510	14.7	50.4
	1950	5,026	2,833	7,859	3.1	41,686	3,069	1,709	44.6	1,230	42.6	11,445	13.8	40.7
Pocahontas Region	Chesapeake & Ohio 1951	52,712	25,968	78,680	4.6	67,054	4,036	2,272	48.0	1,384	49.1	21,288	16.8	74.4
	1950	49,447	29,939	79,386	6.6	60,076	3,641	1,996	46.0	1,212	45.6	19,139	16.7	79.7
	Norfolk & Western 1951	31,017	7,783	38,800	2.7	70,983	4,295	2,348	48.7	1,507	52.8	27,406	16.8	108.7
	1950	27,832	6,993	34,825	4.1	64,861	3,993	2,150	46.5	1,350	49.1	22,723	16.5	84.4
Southern Region	Atlantic Coast Line 1951	11,141	19,271	30,412	2.1	33,488	2,096	928	30.3	945	50.1	5,402	16.1	74.3
	1950	12,253	16,172	28,425	4.6	31,298	1,958	875	30.3	866	45.1	4,468	16.1	74.3
	Central of Georgia 1951	1,756	5,232	6,988	2.7	32,970	1,833	872	31.2	1,025	45.6	4,669	18.0	82.7
	1950	2,576	4,289	6,865	9.6	30,459	1,704	802	29.3	949	43.7	4,034	17.9	88.3
	Gulf, Mobile & Ohio. 1951	2,971	10,265	13,236	3.4	64,826	3,322	1,593	31.0	1,270	56.5	6,030	19.5	139.6
	1950	3,975	9,960	13,935	2.6	58,630	2,902	1,333	29.3	1,020	48.8	4,952	20.3	161.3
	Illinois Central 1951	22,214	30,308	52,522	1.9	46,109	2,541	1,171	32.9	1,087	51.6	8,856	18.3	84.4
	1950	21,435	26,755	48,190	3.5	45,507	2,496	1,146	32.5	1,036	52.0	8,349	18.5	81.7
	Louisville & Nashville 1951	31,010	17,189	48,199	8.7	38,464	2,403	1,181	36.2	909	39.4	9,137	16.0	98.6
	1950	33,233	16,064	49,297	10.6	35,229	2,194	1,072	36.1	911	39.9	9,451	16.1	106.0
	Nash., Chatt. & St. Louis 1951	1,131	4,550	5,681	3.1	39,420	2,012	950	30.1	1,096	50.1	6,217	19.6	99.3
	1950	2,022	4,465	6,487	5.3	35,536	1,804	848	28.8	896	41.3	5,884	19.8	125.7
	Seaboard Air Line 1951	9,127	16,262	25,389	1.9	45,000	2,483	1,078	30.3	1,128	58.4	6,777	18.5	95.9
	1950	9,401	13,707	23,108	2.3	40,036	2,277	987	30.1	1,029	52.9	5,860	18.0	87.5
	Southern 1951	12,624	27,987	40,611	4.5	37,071	2,177	994	29.0	978	48.1	6,439	17.2	77.3
	1950	14,504	24,813	39,317	3.5	35,872	2,093	957	29.7	784	38.5	5,221	17.3	65.8
Northwestern Region	Chicago & North Western 1951	17,184	29,644	46,828	4.3	41,947	2,729	1,253	32.0	737	33.7	4,503	16.1	71.4
	1950	19,779	31,488	51,267	3.2	41,479	2,622	1,077	29.0	589	31.1	3,767	16.5	71.0
	Chicago Great Western 1951	1,099	5,611	6,710	2.7	63,266	3,827	1,760	30.2	1,330	62.0	6,014	16.7	165.5
	1950	1,529	4,932	6,461	3.0	63,235	3,586	1,569	28.5	1,169	60.1	5,419	17.7	148.0
	Chic., Milw., St. P. & Pac. 1951	29,754	36,261	66,015	3.1	44,112	2,649	1,222	31.6	728	34.8	4,513	16.8	80.5
	1950	28,962	30,569	59,531	2.9	41,865	2,521	1,127	30.0	739	37.5	4,148	16.8	81.1
	Chic., St. P., Minn. & Omaha 1951	994	7,921	8,915	3.6	28,601	2,044	91	35.0	653	26.9	3,929	14.7	80.0
	1950	970	7,233	8,203	3.9	26,172	1,893	823	28.1	580	29.1	2,924	14.0	61.3
	Duluth, Missabe & Iron Range 1951	13,368	1,726	15,094	2.3	86,816	5,417	3,015	66.6	1,269	37.9	33,868	16.7	111.0
	1950	13,892	421	14,313	3.2	87,264	5,363	3,273	65.5	1,022	30.4	26,795	17.0	115.0
	Great Northern 1951	22,566	23,051	45,617	3.1	49,338	3,264	1,638	38.6	1,336	54.5	7,432	15.3	87.9
	1950	24,316	19,796	44,112	5.1	43,387	2,852	1,376	36.0	1,051	46.4	5,601	15.4	82.0
	Minneap., St. P. & S. Ste. M. 1951	6,526	8,853	15,379	6.4	43,510	2,379	1,164	33.7	1,030	45.9	3,883	18.4	121.7
	1950	6,908	8,088	14,996	6.2	39,824	2,217	1,045	30.9	888	42.6	3,159	18.1	120.7
	Northern Pacific 1951	18,090	19,047	37,137	4.8	48,915	2,887	1,384	33.6	1,045	45.7	5,855	17.1	82.9
	1950	19,160	12,785	31,945	7.7	48,739	2,877	1,365	32.0	1,035	46.0	5,031	17.1	72.7
Central Western Region	Atch., Top. & S. Fe (incl. 1951	51,596	35,735	87,331	4.1	59,518	2,825	1,106	26.7	1,146	66.2	7,444	21.2	118.2
	G. C. & S. F. and P. & S. F.) 1950	46,736	29,964	76,700	5.3	56,124	2,698	1,029	25.8	852	51.2	4,928	20.9	80.8
	Chic., Burl. & Quincy 1951	17,405	23,679	41,084	4.3	54,965	2,904	1,343	31.7	1,168	55.4	5,550	19.0	77.0
	1950	17,867	22,300	40,167	4.5	52,015	2,761	1,260	30.7	1,112	54.0	5,196	18.9	71.3
	Chic., Rock I. & Pac. 1951	9,116	25,896	35,012	4.0	46,322	2,476	1,095	30.7	1,114	57.9	4,879	18.8	117.4
	1950	10,148	23,112	33,260	3.0	44,631	2,359	984	28.0	1,017	58.3	4,632	19.0	113.8
	Denver & R. G. Wn. 1951	7,922	4,837	12,759	4.7	55,731	3,147	1,521	32.8	1,166	49.6	6,560	17.8	75.0
	1950	8,471	5,131	13,602	5.8	44,199	2,509	1,265	32.7	1,095	45.7	6,103	17.7	84.7
	Southern Pacific 1951	25,685	56,051	81,736	2.7	51,471	3,044	1,240	27.5	1,169	64.1	11,241	17.1	107.3
	1950	27,278	45,274	72,552	3.0	50,241	3,023	1,157	25.9	1,231	74.7	10,980	16.8	109.3
	Union Pacific 1951	31,936	34,739	66,675	2.6	65,470	2,984	1,312	29.6	1,495	75.0	10,329	22.2	112.5
	1950	27,267	33,942	61,209	3.1	68,975	3,008	1,209	26.6	1,421	79.2	8,817	23.2	104.0
	Western Pacific 1951	1,624	4,346	5,970	7.5	69,778	3,193	1,494	29.0	1,745	78.6	8,944	22.0	89.0
	1950	1,989	3,103	5,092	13.1	66,792	3,061	1,435	29.9	2,211	98.1	9,074	21.9	92.6
Southwestern Region	International-Gt. Northern* 1951	788	7,135	7,923	2.6	49,339	2,444	1,129	33.4	954	43.4	6,949	20.3	105.5
	1950	934	6,052	6,986	1.7	46,399	2,309	973	30.1	792	41.3	5,365	20.2	94.5
	Kansas City Southern 1951	1,058	5,898	6,956	4.3	71,660	3,618	1,725	32.3	1,428	63.8	11,148	19.9	98.2
	1950	1,294	5,533	6,827	4.6	67,387	3,480	1,546	30.5	1,111	56.3	8,472	19.4	94.4
	Mo.-Kans.-Texas Lines 1951	3,218	6,475	9,693	5.3	48,958	2,416	1,036	27.9	1,380	76.7	4,149	20.3	107.3
	1950	3,917	9,623	13,540	3.5	44,012	2,316	955	26.9	1,025	60.9	4,150	19.1	119.5
	Missouri Pacific* 1951	18,037	18,085	36,122	2.4	51,674	2,538	1,138	30.8	1,396	69.3	6,967	20.6	110.8
	1950	19,873	18,680	38,553	2.6	48,191	2,351	1,018	28.5	1,094	57.7	6,010	20.6	114.2
	Texas & Pacific 1951	1,988	8,406	10,394	5.4	60,815	2,832	1,091	27.5	1,232	72.0	6,837	21.5	126.2
	1950	2,811	6,985	9,796	5.4	54,188	2,548	940	25.1	1,137	71.8	5,916	21.3	163.9
	St. Louis-San Francisco 1951	10,484	13,013	23,497	3.1	41,928	2,404	1,058	30.4	1,047	54.5	5,157	17.5	68.9
	1950	10,940	12,729	23,669	2.9	37,372	2,161	932	28.8	834	45.1	4,409	17.4	71.2
	St. Louis Southw. Lines 1951	1,554	5,293	6,847	2.3	49,553	2,536	1,134	27.2	1,984	98.4	8,788	19.6	131.0
	1950	1,431	4,365	5,796	2.3	51,527	2,497	1,116	27.1	2,099	110.9	8,039	20.7	117.1
	Texas & New Orleans 1951	3,263	16,568	19,831	2.5	45,364	2,330	1,036	30.3	1,371	67.2	6,477	19.7	107.8
	1950	4,327	16,320	20,647	3.0	43,254	2,257	949	28.6	1,162	63.0	5,611	19.3	98.2

* Report of trustee or trustees.

Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.

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Pressure TREATED MATERIALS

(Continued from page 98)

division freight agent and general freight agent. In 1950 he became district freight traffic manager at Los Angeles.

MECHANICAL

Edward C. Arkell, supervisor of locomotive fuel, Western region, CANADIAN NATIONAL, has been appointed supervisor of enginemen for the same region, with headquarters at Winnipeg, Man., succeeding **E. P. Duke,** who has retired.

Frederick A. Baldinger, superintendent of motive power, Eastern region, of the BALTIMORE & OHIO, has retired and has been succeeded by **Guy F. Wiles,** assistant to the general superintendent of motive power and equipment. **J. J. Ekin, Jr.,** and **W. F. Dadd** have been appointed assistants to the general superintendent of motive power and equipment, with headquarters at Baltimore.

The position of supervisor fuel and locomotive operation of the ERIE, formerly held by **Frank X. Jones,** has been abolished. Mr. Jones has been appointed supervisor locomotive operation, with headquarters as before at Cleveland. **Clarence C. Church,** district road foreman and fuel supervisor at Marion, Ohio, has retired under the pension rules of the company, after 44 years of service. **Frank L. Van Schaick,** district road foreman and fuel supervisor at Port Jervis, N. Y., has been appointed assistant supervisor locomotive operation, with headquarters at Jersey City, N. J. The position of district road foreman and fuel supervisor has been abolished.

SPECIAL

W. C. Laraway has been appointed supervisor of safety of the DELAWARE & HUDSON, at Albany, N. Y., with jurisdiction over all matters at present assigned to the superintendent of safety. He succeeds the late **M. F. Clune** whose death is reported elsewhere in this issue.

OBITUARY

R. L. Helstrom, district freight agent of the CLINCHFIELD at Chicago, died in that city on August 10.

Frederic Moses Gilbough, 96, retired land and tax commissioner of the MISSOURI-KANSAS-TEXAS, died at his home in Dallas, Tex., August 9. He retired from the Katy in 1946 after more than 55 years of railroading.

Emil L. Larson, former engineer of car design and maintenance of the CHICAGO, BURLINGTON & QUINCY at Chicago, whose recent death was re-

(Continued on page 105)

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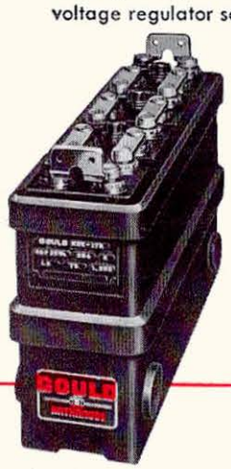

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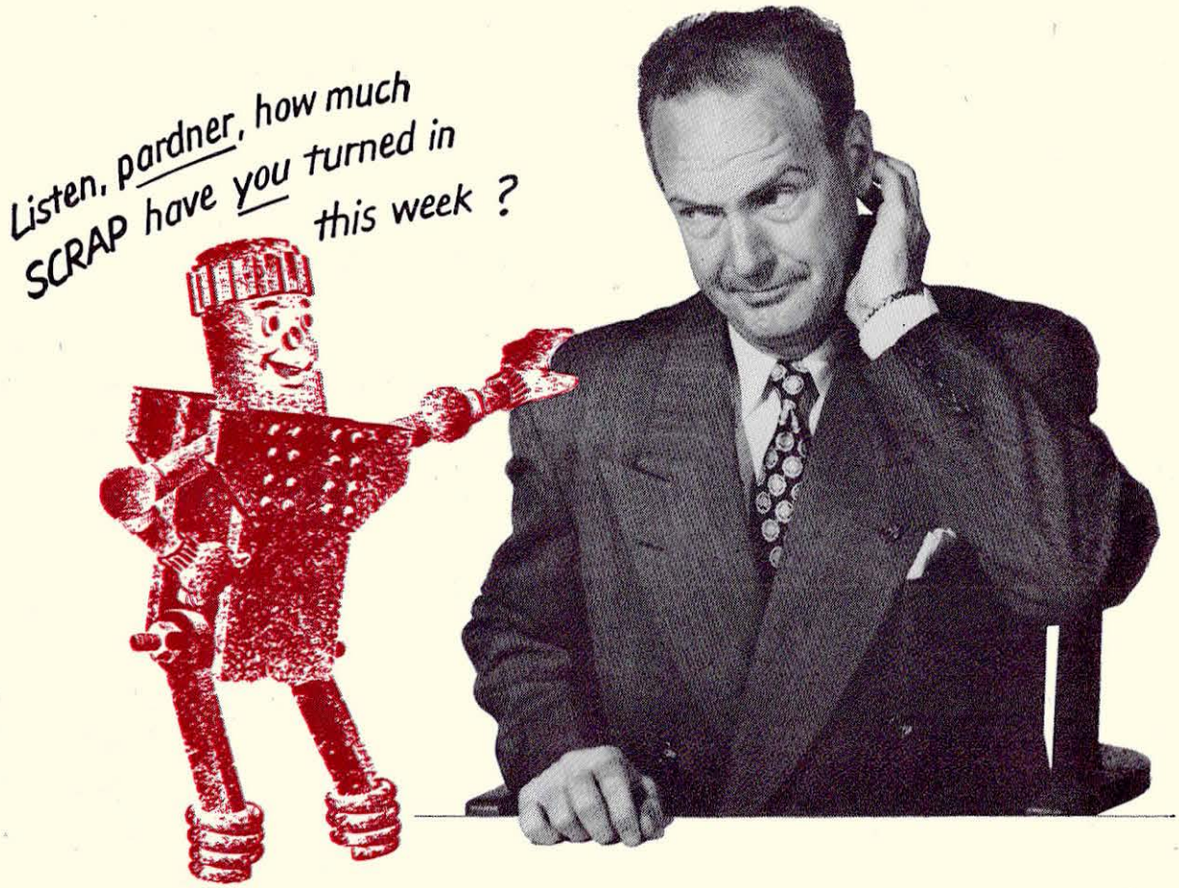

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UNITED STATES STEEL

(Continued from page 102)
ported in the August 27 *Railway Age*, left the service of that road in February 1951, not in 1949, as was incorrectly stated on page 66 of that issue.

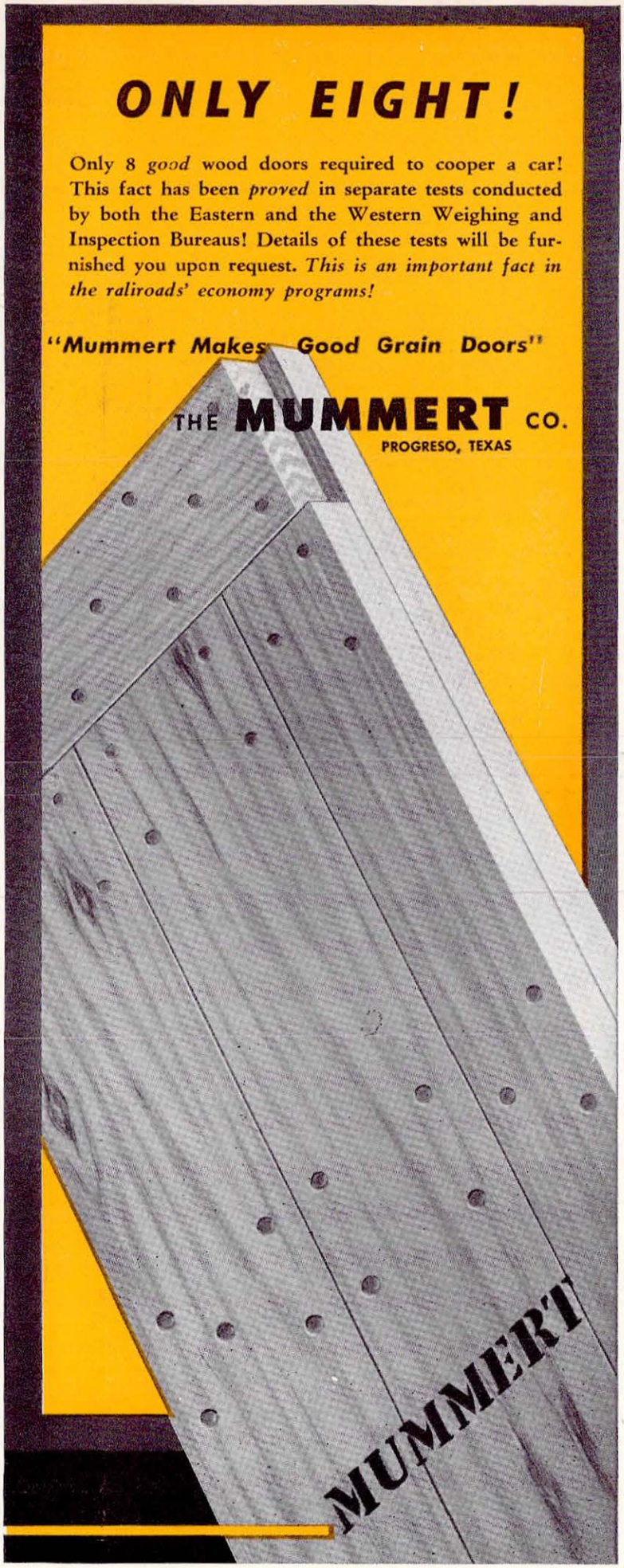
T. W. Bockes, Western general counsel of the UNION PACIFIC, at Omaha, died recently in that city of a heart disease. Mr. Bockes was born at Central City, Neb., March 20, 1885, received his bachelor of laws degree from the University of Nebraska in 1908, and later was associated with a Lincoln (Neb.) law firm for three years prior to joining the U.P. at Central City as local attorney. Advanced to assistant general attorney in 1918 at Omaha, in 1933 he became general attorney for Nebraska, and three years later was appointed assistant Western general counsel. Subsequently he served as general solicitor until 1942, when he was promoted to Western general counsel.

T. W. Bockes

Paul D. Freer, 81, who retired on January 1, 1946, as freight traffic manager of the BALTIMORE & OHIO at Baltimore, died on August 24, after a long illness.

Leonard Schultze, 73, architect who designed and supervised construction of Grank Central Terminal in New York, died on August 25 at White Plains Hospital, White Plains, N. Y. Mr. Schultze was employed in 1903 as chief of design for Grand Central and its attendant structures by the architects of the buildings, and in 1911 became executive in charge of design and construction of all buildings relating to the terminal. Among those built under his direction were the terminal itself, the general office building for the New York Central System, and several hotels and other structures in the vicinity. At the time of his death, Mr. Schultze was senior member of the firm of Leonard Schultze & Associates, New York.

M. F. Clune, superintendent of safety of the DELAWARE & HUDSON at Albany, N. Y., died recently.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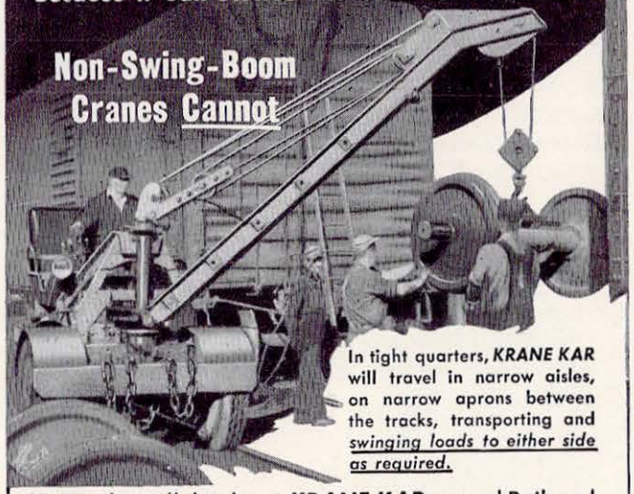

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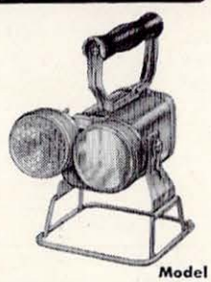

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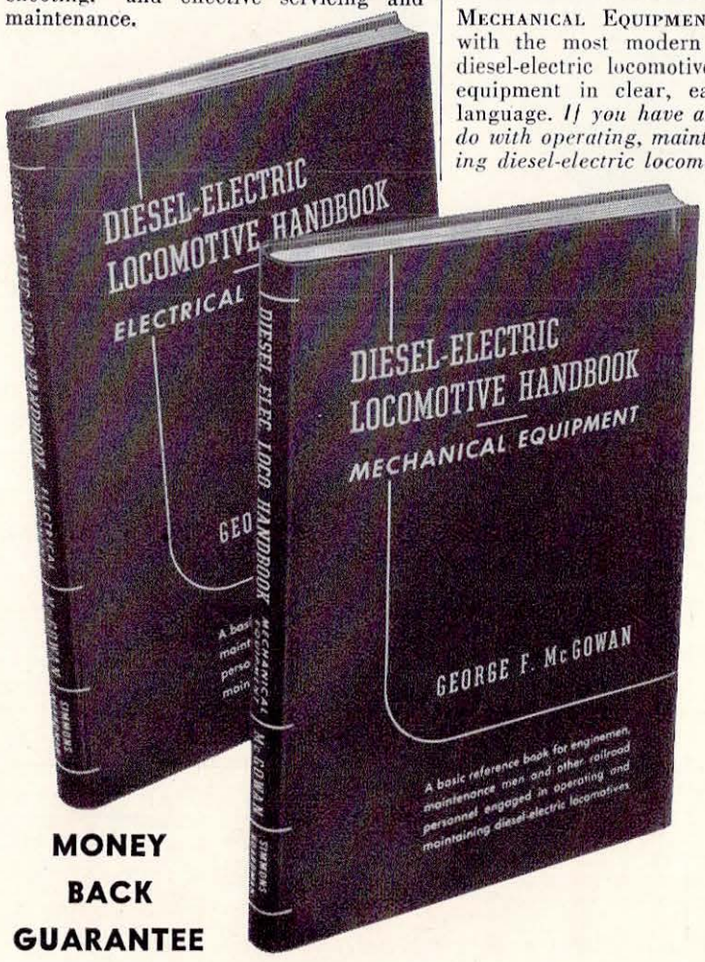

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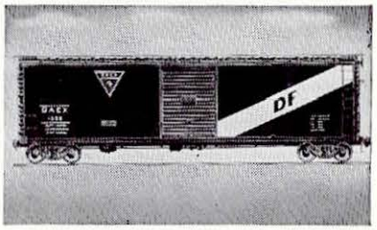
Railroad Finishes

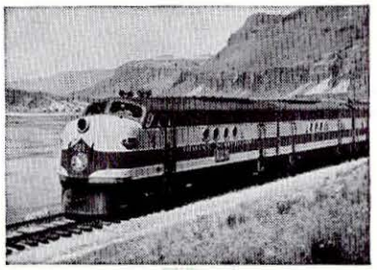
Finish Facts from Du Pont

New GAEX DF-loader cars are finished with eye-catching DULUX colors to win high-rated traffic



Two great names in modern railroad transportation—General American Transportation Corporation and Evans Products Company—have combined to build the new GAEX DF-loader box car, designed to help the railroads win more high-rated traffic. Significantly, the exterior of these remarkable cars is being finished with Du Pont DULUX to maintain the smart appearance that is so important in making the *right* impression on shippers.

The Great Northern Railway's "Empire Builders" inaugurated the first streamliner service between Chicago and the Pacific Northwest on a daily 45-hour schedule. The Empire Builder shown above coursing through the Montana Rockies is finished in the Du Pont DULUX system that is standard on all exterior surfaces of these crack trains. DULUX colors selected were Pullman Green, Omaha Orange and Imitation Gold Striping.



Eastward bound in rugged mountain country, a 5,400-horsepower diesel takes a heavy Great Northern freight train along the Columbia River. As on most Great Northern locomotives, Du Pont finishing materials are used to maintain a handsome exterior appearance . . . protect surfaces against severe weather on Great Northern's famous routes.

THINK

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- ★ One *permanent* source for everything—with stockpiles at nearby Factory-Branches to speed delivery.
- ★ Continuous product improvement passed along to you *automatically*.
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- ★ Engineered packaging to protect parts and cut shipping cost.
- ★ One responsibility for parts to service all locomotives on the line.
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- ★ Parts personnel training programs.
- ★ Stock-Record System to help control inventory.
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